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January 9, 2009 Volume 31 Number 2 www.processor.com



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COVER FOCUS

Cutting IT Costs

It's no secret that the majority of small to midsized enterprises are asking all departments, including the IT/data center group, to cut costs. But where do you begin? We talked with industry insiders to find out.

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Cutting Storage Costs

Rigorous Retention Policies & New Technologies Can Stretch The Storage Budget

by Kurt Marko

It's NO SURPRISE that in these tough economic times, IT managers are being asked to examine their budgets with a microscope in search of cost savings. Although Gartner Senior Vice President of Research Peter Sondergaard expects IT budgets to grow slightly—between 0 and 2.3%—in 2009, he cuts an earlier estimate of 3.3% by about a third and even foresees a worst-case scenario that would result in an average spending decline of 2.5%. Yet this is nothing

new for IT managers who still remember the budget carnage in the wake of the dot-com collapse.

With data growth averaging about 70% per year, storage may be one of the most intractable areas from which to extract savings. As Burton Group Storage Analyst Gene Ruth puts it, "Even in bad economic times, storage still grows." Thus, storage managers shouldn't necessarily expect absolute cuts in their budgets but should instead strive to "stretch your dollars to do more and use what you have more efficiently," says Greg Schulz, principal at StorageIO.

Do Some Data Housecleaning

Before devising specific steps to increase storage efficiency, Ruth says, "It is helpful to [deconstruct] the problem into its constituent components and categorize improvement approaches." He breaks storage environments into two realms: storage containers and the data stored (the footprint).

Key Points

- Control your data footprint: Develop retention policies, delete unnecessary data sets, and move infrequently used data to less expensive hardware.
- Increase hardware utilization ratios by consolidating storage.
- Use data reduction technologies to increase the amount of data existing equipment can store.

The first step toward improving the utilization of existing storage resources is doing a simple cleanup, or what storage experts call data footprint reduction. According to Ruth, this involves understanding the sources, applications, and users of various data sets and developing retention policies for each category.

Although this may sound like a tedious, manual process—and indeed it does involve some legwork—Schulz notes that tools built into most storage management software can simplify the task by generat-



ing usage reports for various files or databases. These reports can identify candidates for archival or deletion; however, John Sloan, senior research analyst at Info-Tech, cautions that audit logs are no substitute for a conversation with the business about the importance of various data sets.

The most obvious means of cleanup is deletion, and although there's a natural tendency to hoard data against some hypothetical future request, this can be counterproductive, says Ruth, adding, "Don't be afraid to delete data."

After identifying candidates for deletion, Schulz says storage managers should then find data that can be moved to less expensive devices, whether slower, commodity disk systems for intermediate-term needs or tape libraries for long-term archiving. Ruth explains the rationale behind this strategy, known as tiered storage: "Upon creation, data may require frequent access—and thus

Go to Page 10

Storage Interfaces

Sort Through The Options To Make The Right Choice

by George Crump

In 2009, THE IT PROFESSIONAL might feel like he is faced with many different interfaces to choose from for storage connectivity. On the storage infrastructure side, there is 4Gb Fibre Channel moving to 8Gb Fibre Channel, the option of FCoE (Fibre Channel over Ethernet), and 1Gb iSCSI moving to 10Gb iSCSI. On the storage component side, there is SAS, Fibre, SATA, and even SSD. Each of these options has a viable use in the data center, and working through the options is not as difficult as it appears.

Infrastructure

Paul Vogt, senior director of product management at Xyratex (www.xyratex.com), advises that once you decide you need a SAN or upgrade to a new one, don't compare performance numbers of the different options: "The protocols are too different; you have to characterize the performance testing with your workload."

"Also, don't rule out Fibre Channel just because you have heard that iSCSI is easier," says Brocade's Mario Blandini, director of data center infrastructure product marketing (www.brocade.com). Blandini notes that the Fibre Channel of today is significantly easier than the Fibre Channel at the beginning of the decade and that it has become a much easier plug-and-play solution.

Vogt believes that 8Gb Fibre Channel is ready now for most customers, even firsttime SAN buyers: "It is the natural upgrade for a current SAN, and the added bandwidth is ideal for IT staffs rolling out their server virtualization projects." Brocade's Blandini echoes that sentiment, saying, "Many customers are tempted to start with iSCSI because of perceived ease of use; the challenge is that in virtualized server environments, you quickly begin to push the limits of today's iSCSI, and the steps needed to scale performance can make the implementation very complex. 8Gb Fibre Channel starts out with plenty of performance and adding to that performance is straightforward."

FCoE is a 10GbE-based protocol and is positioned to take advantage of both Fibre and IP infrastructures. While FCoE is capturing a lot of attention right now and companies are shipping FCoE HBAs, Vogt believes that because the standard has not yet been ratified, most users will likely wait until mid-2010 before implementing the option. He notes, "Despite that, a Fibre Channel-based protocol, like 8Gb, will

Go to Page 10

3. What is your annual computer hardware/

software purchasing budget?

□ \$10.000 to \$24.999

□ \$50,000 to \$99,999

\$25,000 to \$49,999

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☐ Less than 10

□ 200 to 499 □ 500 to 999
□ 1,000+ □ 10 to 99 □ 100 to 199

2. How often do you purchase computer hardware/software?

Email:

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Quarterly ☐ Annually □ No Involvement For address change, fill out form below with new

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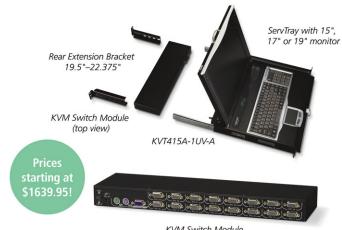
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PHYSICAL INFRASTRUCTURE

JANUARY 2, 2009



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Black Box ServTray Complete

If you're looking for a way to make your server room even more functional without sacrificing valuable space, you've found it. The ServTray™ Complete by Black Box®—an integrated keyboard, monitor, and mouse that only takes up 1U of rack space—fits into standard server cabinets and enables you to manage as many as 16 PS/2® or USB servers or a combination of the two. They also provide out-of-band access to servers and centralized control of server resources.

Designed for heavy-duty use, the ServTray Complete can replace that bulky local workstation you've been using. It's easy to install and access—just slide out the drawer and open the flat-screen monitor. When you're done, simply

slide it back in place. The front panel conceals the unit when not in use.

The ServTray Complete is available with screen sizes of 15, 17, and 19 inches, and it can accommodate KVM switching modules with 1, 8, or 16 ports. Once you've chosen your screen size, switching module, and bracket extensions, just choose your cables and you're in business. The ServTray Complete mounts in a standard 19-inch cabinet or four-post rack with depths from 19.5 to 39.5 inches.

The ServTray Complete is just what you need to give your server room increased functionality and conveniencein only 1U of rack space.

SECURITY **DECEMBER 26, 2008**

Remote IT Automation, Simplified

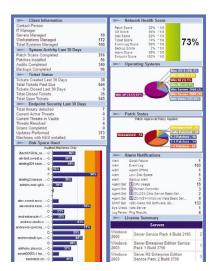
Kaseya Endpoint Security & Backup And Discovery Modules

In tough economic times, optimizing IT resources is crucial to business success. With automation, companies can deploy solutions quickly and efficiently. Kaseya's answer to these issues is in the latest versions of its KES (Kaseya Endpoint Security) and BU-DR (Backup and Disaster Recovery) modules. The new modules are designed to simplify remote IT automation with seamless endpoint security, instant virtualization, and real-time disaster recovery.

The two modules provide different functionality. The KES module, integrated at the user-interface level and the database level with all other parts of Kaseya's IT automation software suite, lets users automate IT management without sacrificing full visibility. Users can keep an eye on all deployment, configuration, status, and operations of end-point security from a single Web-based console. KES provides seamless operation and management of antivirus, antispyware, and rootkit protection for Microsoft OSbased servers, workstations, and mobile computers.

Features of the BU-DR module include Incremental Forever and Synthetic Full Backups as well as Instant Virtualization. The backup functionality is designed to offer efficient offsite replication and user-defined archival capabilities. Features of Instant Virtualization include the ability to remotely and automatically convert any backup to a

VMware, ESX, or Virtual PC virtual disk. To make the restoration process less painful and recover files and folders in real time, users can set up a virtual environment and quickly have a key system up and running.

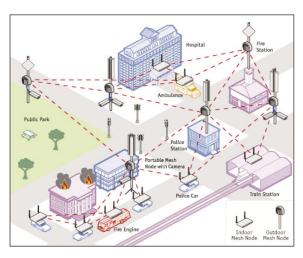


Kaseya Endpoint Security 2.0 and Backup and Disaster Recovery 3.0 simplify remote IT automation.

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NETWORKING & VPN

DECEMBER 26, 2008



Firetide's HotPort 6000 wireless mesh nodes and HotPoint 4000 wireless access points enable standalone wireless networks.

HotPort 6000 mesh nodes: \$1,295 to \$2,995; HotPoint 4000 access points: \$395 to \$995

(408) 399-7771

www.firetide.com

Standalone Wireless Networking

Firetide HotPort 6000 & HotPoint 4000

If there is anything better than reliable alarm monitoring and response supervision technology, it's the wireless version of those abilities. Companies and individuals in a variety of fields, such as emergency services and security, would benefit from the ability to wirelessly receive and act on alarms. A new wireless system of this nature has been developed by Digitize using wireless mesh technology from Firetide.

Firetide's technology facilitates a costeffective, rapid deployment and easy installation, enabling employees to set up a standalone network without the need for IT personnel. The networks operate in the 2.4GHz, 4.9GHz, and 5GHz frequency ranges. Firetide HotPort 6000 mesh nodes and HotPoint 4000 access points are equipped with HotView network management software and Firetide WLAN Controller soft-

ware, respectively, and feature WPA2 (Wi-Fi Protected Access 2), WEP (Wired Equivalent Privacy), and AES encryption for security, as well as a proprietary encapsulation

The Firetide HotPort 6000 wireless mesh nodes and HotPoint 4000 wireless access points come in both indoor and outdoor versions, enabling users to set up a network in virtually any location.

In addition to being cost-effective, the networks are self-contained and easily repositioned, so users can adjust to their changing needs on the fly.



STORAGE DECEMBER 19, 2008



Barracuda Backup Service Integrates Local & Secure Offsite Backup For Disaster Recovery

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Barracuda Backup Service

The Barracuda Backup Service is an affordable, integrated local and offsite data backup and disaster recovery solution that combines an onsite appliance with a monthly subscription that replicates data to two offsite locations. Combining local and offsite storage provides the best of both worlds—onsite backups for the fastest restore times and secure, offsite storage for disaster recovery.

Designed for organizations of any size, the Barracuda Backup Server creates a local copy of data and efficiently transfers the data offsite without any additional burden on production servers. Offsite storage is monitored and managed by Barracuda Central as part of the Barracuda Backup Subscription, and tech support and emergency restores are included, as well.

Deployed in varied, complex IT environments, the Barracuda Backup Service protects mission-critical business information, utilizes industry-standard networking protocols to access data for backup, and is compatible with all major operating systems.

The Barracuda Backup Service Web control panel makes it easy to manage and back up data to multiple units at one or more locations—from anywhere. It also provides control of settings, reports, restores, statistics, and account information in order to manage Barracuda Backup Servers and Barracuda Backup Subscription plans. In addition, customers receive automated alert notifications via the Web control panel when conditions affecting backup service are detected.

SERVICES DECEMBER 19, 2008

Extensive Inventory Of Obsolete Components

IGS Refurbished DEC Parts, Products & Systems

IGS is the world's largest independent remanufacturer and source of supply, service, and depot repair of Digital Equipment Corp.® parts, products, and systems.

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IGS offers:

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• VMS Cluster design and implementation

IGS offers parts, service, and repair for DEC components and systems.

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NETWORKING & VPN DECEMBER 19, 2008



I'm InTouch SecurePC & SecureKEY prevent data loss and unauthorized access to your workstations while allowing your employees fast and secure remote control of their computers from anywhere.

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SECURITY DECEMBER 5, 2008



Protect Your Business Against Data Breaches From Lost Laptops

I'm InTouch SecurePC & SecureKEY

Allowing employees to take company laptops containing confidential information outside the office is a security risk. If the laptop is lost or stolen, the data on the laptop is compromised and could fall into the wrong hands. Instead, use the I'm InTouch SecurePC and keep your data safely behind your corporate firewall.

The SecurePC remote access terminal allows businesses to provide their employees with all the freedom of laptops without the security risks. Instead of storing their work on a laptop, employees can use the SecurePC to remotely control their office workstation from anywhere over the Internet using 01 Communique's I'm InTouch Premium remote access solution. No files can be saved to SecurePC, ensuring no data leaves the safety of the corporate network.

For even more security, add the SecureKEY physical authentication USB device to prevent

unauthorized remote access to company workstations. Only a computer with an employee's personal SecureKEY inserted into its USB slot can be used to remotely access the employee's workstation in the office. Even if the employee's remote access login password were compromised, unauthorized access would not be possible because the SecureKEY would not be present.

By combining the SecurePC, SecureKEY, and I'm InTouch Premium solution, businesses can deploy an incredibly secure remote access platform quickly and cost-effectively, without any performance sacrifices.



Portable Surveillance Gets Rugged

DNF Security JetX

Portable surveillance is a powerful way to maintain security in rough environments. Whether it's a construction site in a remote location or the scene of an emergency, portable surveillance provides crucial help when it's needed most. DNF Security's JetX surveillance solution is ideal for mobile, offsite monitoring and recording.

The series of devices includes three models with rugged systems designed to work in severe conditions with no interruption. The units each have one 15-inch or three 17-inch high-resolution LCD displays and an open platform for better compatibility with equipment such as cameras and video management software.

The triple-screen systems support up to 3TB of storage. All JetX

systems feature a built-in high-resolution display, integrated keyboard and touchpad, and a rolling carrying bag.

www.dnfsecurity.com

The JetX M-Powered product features a battery-powered system designed to provide long-lasting power in off-road applications and is also available in hybrid editions. The hybrid editions support up to 32 analog and eight IP cameras. Single-display JetX systems feature 2TB of internal storage capacity and a dual-core Xeon processor.



News

■ Verizon Awarded \$33.15 Million In Cybersquatting Lawsuit

A federal court in northern California awarded Verizon more than \$33 million against Online-NIC, a company that illegally registered hundreds of Web sites that could potentially be mistaken for legitimate Verizon domain names. The court ruled that OnlineNIC should pay

\$50,000 for each of the 663 domains it created using Verizon's name and



trademarks. Verizon is calling it the largestever judgment in a cybersquatting case, but the telecommunications company could have trouble collecting on the judgment, which was a default ruling because no one from OnlineNIC appeared in court on the company's behalf.

Palm Gets A Leg Up From Elevation

Just before Palm released its latest operating system, Nova, at CES, private equity firm Elevation Partners announced it would invest \$100 million in the smartphone maker. With Nova, Palm hopes to steal the spotlight from Apple's iPhone and RIM's (Research In Motion) BlackBerry, which have played a part in Palm's six consecutive quarterly losses. Palm executives claim the new operating system will make better use of mobile Internet access and find a balance between the entertainment-oriented iPhone and the business-centric BlackBerry. Flevation invested \$325 million in Palm in October 2007, and with the latest infusion. Elevation has a 39% stake in Palm.

LG Shuffles Its Divisions

LG Electronics announced that it is reshuffling its business units into Mobile Communications. Home Entertainment, Home Appliance, Air Conditioning, and Business Solutions departments as of Jan. 1. As a result of the restructuring, LG hopes to improve its standing in the commercial market. Simon Kang will be president and CEO of LG's Home Entertainment division, which will focus on televisions, PDP modules, and audio/video products. Young Ha Lee will head the Home Appliance division, which will handle refrigerators, washing machines, kitchenware, and other appliances. Hwan Yong Nho will helm the new Air Conditioning division. The new Business Solutions division, to be led by B.B. Hwang, will be responsible for commercial (B2B) monitors, hotel TVs, digital signage, security, and telematics. Dr. Scott Ahn will be the president and CEO of the Mobile Communications unit, which will remain largely unchanged.

Motorola Cuts Employee Compensation

In a further effort to save money, Motorola cut expenses from the top down with voluntarily

reduced executive compensation and revised employee compensation and benefits. The cuts are in addition to an estimated \$800 million cost reduction plan announced in late October. Many employees did not receive a 2009 salary increase, and co-CEOs Greg Brown and Sanjay Jha took a 25% reduction in 2009 base salary. Beginning Jan. 1, Motorola suspended company-matching contributions to its 401(k) plan. The company will freeze its U.S. pension plans March 1, eliminating future benefit accruals while preserving benefits already accumulated. Motorola plans to continue to meet pension obligations to present and future retirees.

Researchers Work On Tiny Memory

Researchers at Rice University have discovered that a graphite-based product could someday be used as the basic component in memory used for computers and consumer electronics devices. Graphene, which is 10 atoms thick or less, could increase the amount of storage by a factor of five, according to Rice professor James Tour and two postdoctoral researchers. The solid-state device would be controlled by two terminals (current chips use three) and use almost no power. Graphene can tolerate temperatures ranging from -75 to more than 200 degrees Celsius, making it compatible with hot-running processors.

Data Centers Plan Cutbacks

According to a recent survey conducted by the AFCOM (Association For Computer Operations Management) Data Center Institute, 49% of data centers are expecting to cut spending this year.

The survey, conducted in November 2008 and reaching about 130 companies, indicates that the hardest-hit areas among those institutions experiencing a retraction are IT equipment at 21%; supporting equipment, such as cooling, at 16.5%; training at 23%; and staffing costs at 14%. Other findings of note show that virtualization will be used more at 86% of all of the data centers, and 70% of the respondents will use videoconferencing more often to cut travel costs. The survey fol-

Windows XP Is Spared The Ax, For Now

2008 of about 300 companies.

lows up on a similar one conducted in May

Windows XP has received another reprieve Previously, Microsoft set a deadline of Jan. 31

from Microsoft, as the company has extended its licensing cutoff date to May 31, 2009. as the cutoff date for the OS, after which it would no longer issue licenses to computer

This information provides a quick glimpse of current and historical stock prices and trends for 14 major companies in the technology market.

Company	Symbol	Year Ago	Dec. 23 \$	Jan. 2 \$	% change from previous week
AMD	AMD	\$7.14	\$1.98	\$2.38	▲ 20.2%
Computer Associates	CA	\$24.55	\$17.93	\$18.90	▲ 5.41%
Cisco Systems	CSCO	\$26.54	\$16.29	\$16.96	▲ 4.11%
Dell	DELL	\$24.39	\$10.83	\$10.75	▼ 0.74%
Google	GOOG	\$685.19	\$299.16	\$321.32	▲ 7.41%
HP	HPQ	\$49.65	\$34.62	\$36.81	▲ 6.33%
IBM	IBM	\$104.69	\$80.65	\$87.37	▲ 8.33%
Intel	INTC	\$25.35	\$14.11	\$15.20	▲ 7.73%
McAfee	MFE	\$35.79	\$32.83	\$34.64	▲ 5.51%
Microsoft	MSFT	\$35.22	\$19.27	\$20.33	▲ 5.5%
Oracle	ORCL	\$22.49	\$17.26	\$18.41	▲ 6.66%
Red Hat Software	RHT	\$20.60	\$12.95	\$13.99	▲ 8.03%
Sun Microsystems	JAVA	\$17.42	\$3.77	\$4.22	▲ 11.94%
Symantec	SYMC	\$16.06	\$12.81	\$14.80	▲ 15.53%

NOTE: This information is meant for reference only and should not be used as a basis for buy/sell decisions.

builders, effectively forcing them to sell computers with Windows Vista installed instead of WinXP. With the new deadline, however, OEMs have been granted an extension until July 31. Though Microsoft is pushing Vista adoption, WinXP remains a popular platform, especially as Vista's reception has been poor. With the latest Microsoft OS, Windows 7, looming at the end of this year, Microsoft appears to be trying to retire WinXP for good after the middle of the year.

Opera Mobile Browser Gaining Popularity

Opera released its latest State Of The Mobile Web report, and the results are impressive. According to the report, the browser's traffic has skyrocketed 463% since 2007, and page views have increased 303% in the same time frame to more than 5.7 billion in November 2008 alone. Social networking in particular has been driving up the numbers. Opera, a relatively small player in the desktop browsing arena, is a juggernaut in the mobile browsing market.

Enterprises Still Using Multiple BI Tools

Despite consolidation efforts, more than 40% of all enterprises are using three to five different business intelligence analysis and reporting tools, according to an August survey by Forrester Research, while one in five of the 82 respondents are using six or more tools. According to two-thirds of the respondents. these tools can be difficult to learn: however. the survey also found that BI is becoming more present in the data center, as 60% of respondents indicate they are deploying some kind of BI, data warehousing, or data integration tools across their enterprises, and threefourths of respondents say their IT departments are creating most of their enterprises' reports and dashboards.

Google Still Ad King

According to a report by content-tracking firm Attributor's, Google owns about 57% of the ad server market, which far outweighs the 15% owned by Microsoft and Yahoo! combined. The report has sparked new talks of a Microsoft/ Yahoo! merger, because the companies as separate entities have yet to challenge Google on the ad server front. Google's DoubleClick acquisition contributed to its market dominance, as DoubleClick had a 30.7% share of the ad server market. Additionally, Google's AdSense rose 25.8%.

RIM Sues Motorola

BlackBerry maker Research In Motion has sued Motorola, claiming Motorola is inappropriately hindering RIM's ability to offer jobs to employees laid off by Motorola. In the complaint, which was filed in state court in Chicago. RIM asked for an order cancelling an agreement RIM and Motorola made in 2008 to prevent solicitation of each other's employees The arrangement between Motorola and RIM expired in August; therefore, the agreement is no longer enforceable. The new suit comes three months after Motorola filed suit against RIM for violating the agreement and requested the judge block RIM from using confidential information from Motorola or hiring Motorola's employees.

Oracle Sales Steady

Computing giant Oracle saw a 6% increase in year-over-year sales for the second quarter of 2008. However, Oracle indicates that net income dropped by 1% to \$1.3 billion, which the company attributed to the 3-cent-per-share impact of the U.S. dollar strengthening compared to foreign currencies. The company's license revenue was down 3% year over year. reaching \$1.6 billion but still close to the \$1.66 billion predicted by analysts. For its current quarter, Oracle is forecasting a growth in revenue of between 8 and 11%.

Upcoming IT Events

Are you looking to learn more about data center or IT topics? Network with some of your peers? Consider joining a group of data center professionals. If you don't see a meeting listed in your area, visit www.afcom.com, www.aitp.org, or www.issa.org to find a chapter near you.

- JANUARY -

AITP Chattahoochee Valley

Jan. 15, 12 p.m. Columbus Regional Library 3000 Macon Road Columbus, Ga. www.cvcaitp.org

AITP Omaha

Jan. 15, 5:30 p.m. Seraph Corp Omaha, Neb. www.aitpomaha.org

AITP Tarheel

Jan. 15, 6 p.m. Foothill Brewery 638 W. 4th St. Winston-Salem, N.C. www.aitp.org

ISSA Upstate SC

Jan. 16, 11 a.m. NuVox 301 N. Main St., Suite 5000 Greenville, S.C. www.upstate-issa.org/index.htm

. **AITP Pittsburgh**

Jan. 19, 6 p.m. Sokol Club-Southside 2912 E. Carson St. Pittsburgh, Pa. www.aitp-pgh.org

Oklahoma City AITP Chapter

Jan. 20 Oklahoma City, Okla. www.aitp.org/organization /chapters/chapterhome.jsp?chapter=40

Florida Educational **Technology Conference**

Jan. 21-24 Orlando, Fla. www.fetc.org

ISSA Oklahoma City

Jan. 21 Spaghetti Warehouse 101 E. Sheridan Ave. Oklahoma City. Okla. www.issa-okc.org

Gartner CIO Leadership Forum

Jan. 25-27 Palm Springs, Calif. www.gartner.com/it/page.jsp?id=770919

ISSA Des Moines

Jan. 26, 11:30 a.m. 1401 50th St., Suite 200 West Des Moines, Iowa

AITP Akron

Jan. 27, 6 p.m. Lindsay's Amber Restaurant 1500 Canton Road Akron, Ohio www.akron-aitp.org/index.htm

ISSA Baltimore

Jan. 28, 4:30 p.m. Sparta Inc. 7110 Samuel Morse Drive, Suite 200 Columbia, Md. www.issa-balt.org

- FEBRUARY -**AFCOM St. Louis**

"Gateway" Chapter Feb. 10 Schneider Electric Technology Center 807 Corporate Centre Drive O'Fallon, Mo. www.afcom.com/afcomnew/stlouis.html

Greater Kansas City AFCOM

Feb. 10 Cerner Corp. 3200 N. Rockcreek Parkway Kansas City, Mo. www.greaterkc-afcom.com

. AITP Washington D.C.

Feb. 12, 6:30 p.m. Alfio's Restaurant 4515 Willard Ave. Chevy, Md. aitpwashdc.ning.com

PRODUCTS AT WORK

Automating Desktop Updates & Trouble Tickets

Credit Union Streamlines Its Help Desk, Saves On Labor Costs

by Sue Hildreth

FOR THE IT HELP DESK, there's nothing like a sudden influx of new employees or a rash of equipment problems to cause a backlog of support requests. Likewise, when the organization expands, adding staff and IT equipment at a rapid rate, the help desk often finds itself struggling to keep up with support needs.

At the Truliant Federal Credit Union, a \$1.1 billion credit union that serves more than 180,000 members, rapid growth in business created increased turmoil in the IT department. The Winston-Salem, N.C.,-based company had steadily increased its number of employees, and with those new employees came more desktop PCs and networking hardware.

That additional hardware and software naturally created a backlog of work for the small IT support staff. The 10 IT employees not only had to troubleshoot problems with end users' PCs, but they also were responsible for getting the upgrades to all of those PCs and making sure everyone had the most recent application updates, browser versions, and security patches. Because almost all of the work was managed manually, the backlog just kept growing.

"We manually deployed applications across our offices, which took an incredible amount of time," says Jason Allen, Truliant's help desk technology support specialist.

Similar, But Not The Same

Truliant's 450 employees had desktops that were similar, but never exactly the same. There were always some with older versions of Adobe, a browser, or another application. The IT staff had to manually update all of these client computers and respond to employee problems with the desktops and server-based applications.

Eventually, it became clear to Allen and the others in the IT department that they needed to automate and streamline the help desk processes. While they had an existing help desk application, it didn't do many of the things Truliant needed. For instance, it took two minutes to create one trouble ticket. And when Allen or others wanted to add or change a feature, they found that the application was not easily customizable.

In addition, it was costly to upgrade, as new features required additional payments. Allen says the manufacturer support staff for the existing application "would say, 'Well, you don't have this update, or you don't have that update.' KBOX auto-discovers network-wide hardware and software configurations via either managed software agents or agentless network scanning.

The system also takes inventories of the network configuration of switches, routers, and other devices, as well as the software elements such as applications, Registry systems, and files. The KBOX enforces security policies and has the ability to quarantine problem nodes. Administrators can run scripts for Windows, Macintosh, Linux, and Solaris Unix, and the KBOX comes with out-of-the-box scripts for Windows. The scripts can be run immediately or scheduled.

according to rules set by Truliant, such as the severity of the problem, the skills or technical expertise needed to solve it, and the location of the application or computer.

The User Portal enables end users to see the status of their tickets. It also provides IT administrators with an historical view of problems associated with each desktop.

"If you look at a computer that's on the system, you can look at help desk tickets that are associated with that computer," says Allen. "So if we see one desktop computer that has all sorts of tickets about slow performance, then we know that it's an ongoing problem and start trying to figure out if it's the network or the server or perhaps the client itself and it needs replacing."

Overall, Allen says the move to an automated help desk appliance has saved Truliant more than \$170,000 annually in IT costs. That figure is according to KACE's calculations, which were based on an estimated savings of 7,000 employee-hours for the Truliant IT department at average per-hour labor costs.

"It has saved us a lot in labor costs," agrees Allen. "It [sped] up a lot of formerly manual tasks."



They wouldn't give us updates without paying additional money."

Then Truliant came across the KBOX Systems Management Appliance from KACE (www.kace.com). The KBOX appliance handles a variety of hardware and software inventory tasks, remote replication, configuration, and alerting. It also features a help desk module that had many of the things that Truliant wanted. Allen says he was particularly happy with the product's ability to automate many help desk functions, and he liked the fact that it also handled other systems management tasks. And it came at a price that was less expensive than Truliant's existing application.

"We saved money because we got all of these other systems management applications with the help desk application for less than we would have paid to update our existing software and then having to pay still more to upgrade it with the features we needed," says Allen.

Managing Assets & Upgrades

The KBOX's system management capabilities include the management of hardware and software inventories and configuration and policy management. The

It was the help desk functionality that was, of course, of greatest importance to Allen. "We had to do a lot of things manually, and it was time-consuming. This allows us to do many of those things automatically and a lot faster," he says.

For instance, just updating all of the Web browsers or versions of Adobe Reader on employee PCs can consume substantial IT time. With the KBOX, however, Truliant's IT staff was able to view all of the PCs that required updates and schedule a time to push out that application or patch. Upgrades are much less of a problem now.

End users who prefer to handle their own upgrades or want an additional application can go to the User Portal Software Library. There they can browse the applications that the company has licensed and select which ones they want to download.

Route & Resolve Tickets Faster

Having an automated help desk application also has saved Truliant's IT department time in managing its trouble tickets. Both users and IT staff can create and submit a trouble ticket via email or the KBOX interface in about 30 seconds, according to Allen. The tickets are routed

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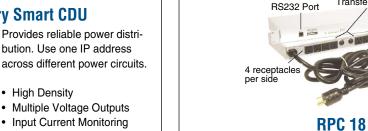
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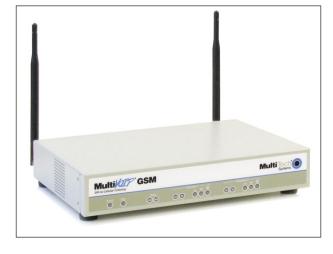
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Messaging & Telephony

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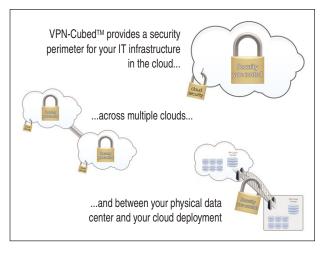


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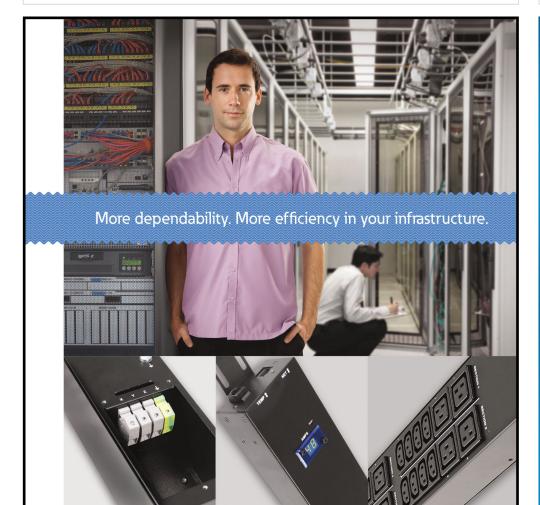
The IPS 5500 E-Series has new shunning features designed to provide companies with techniques to support the device's automated attack defense. These include the ability to quickly temporarily or permanently reject traffic from IP addresses suspected of originating or being related to an attack. The new features are designed to help companies interactively identify current attackers and then shun attack traffic.

The IPS 5500 E-Series also includes a new user interface with dashboards designed to allow Security Operation Center personnel to

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Reducing IT Security Costs

Making Security Cuts Is A Tricky But Achievable Task For SMEs

by Christian Perry

IN DIFFICULT ECONOMIC TIMES, organizations often call upon certain departments to cut costs. But in the current downturn, no department is safe from cuts, and that includes IT security. Pulling the plug on security spending and projects can help improve the bottom line, but small and midsized enterprises can find the process exceedingly difficult, particularly when cuts could leave parts of the organization open to attack.

"Cutting security spending can be tough when security has been a long-underfunded initiative," says Gretchen Hellman, vice president of marketing for Vormetric (www.vormetric.com). "Security today has pressing needs. It is no longer just 'the responsible thing to do'—it's regulated, [it's] audited, and the lack of it in specific areas comes at a very high cost. In addition,

current economic conditions have increased the risk of insider threats and external hacking for profit."

Top-Down Perspective

Due to the inherent risk involved with losing protection against both internal and external threats, cutting back on security costs should not revolve around the elimination of products or technologies already in place. Instead, experts say, SMEs need to turn to a more policy-focused approach to ensure that the proper security is always in place without the need to spend beyond budgetary plans.

According to Jeff Kalwerisky, chief security evangelist at Alpha Software (www.alphasoftware.com), information security at most companies is driven by systems administrators and net-

work engineers, who in turn deploy "techie" solutions such as antivirus, fire-wall, intrusion detection/prevention, and encryption. After all, if security is seen as a technical issue, then solutions will be purely technical.

"The result? Continually escalating security costs, as each new technical flavor of the month is investigated and deployed. Yet this doesn't apply in most other areas. For example, businesses typically don't leave decisions such as whether or where to build a new warehouse to the guys on the loading dock. In similar fashion, information security and protection are normal business processes which should be governed and managed from the top," Kalwerisky says.

Instead of getting involved in the security decision-making process, managers at SMEs simply sign the check and complain about the costs because they don't feel they understand the technical issues, Kalwerisky explains. However, costs can be saved if information security is built from the top down and the business units—which gener-

ally are the owners of the information stored in the data center—are involved in strategic and technical decision making.

One method for creating such a framework is basing security on the ISO 27002 standard (www.iso.org), which Kalwerisky says offers a rational approach to security that can help ensure that information security dollars are spent where enterprises need them most.

"Only when management and business units are closely involved with managing and driving information security can an enterprise decide which security expenditure is mission-critical and which can be delayed or solved by alternative means," he says. "The primary cost-cutting measures, therefore, are careful examination of costly security solutions in the light of business risk—i.e., are we spending the dollars to protect the most sensitive assets? In the light of that risk-based information,



management can consider and adopt costcutting measures such as outsourcing of some security functions ([such as] firewall monitoring or public key infrastructure for digital certificates) and server and memory virtualization with appropriate security for virtual machines."

Profit Through Policy

Although IT organizations are likely to closely examine the technologies currently in place to find potential room for more cost-effective options, managers should also review current relationships. Kenneth Ziegler, president and COO of Logicworks (www.logicworks.net), says that CIOs should review their vendor contracts and staff profiles and make a decision about which relationships are core and non-core. He defines core relationships as those within the organization that are directly aligned with promoting or strengthening the company's products or services. Non-core relationships—those that require ongoing maintenance, support, and time—could be

Key Points

- By involving business units in technical strategies, organizations can more effectively identify areas for cost-cutting in information security.
- Strong, thorough security policies are a must to ensure that managers understand all of the costs associated with security.

offloaded to a services provider that offers a more predictable cost structure.

Ziegler also recommends that enterprises create and refine security policies on at least a biannual basis, and this includes employee policies and permissions, password policies, and regular application of patches and updates. Kalwerisky notes that in the absence of clear business policies, it is impossible to define—let alone manage—information security and its attendant costs.

"The security strategy should include policies such as acceptable use (what em-

ployees can and cannot do with corporate information policies); responsibility for information security; dissemination of and training in the security policies to all employees; regular assessment of business risk (e.g., Should we encrypt all laptops?); an unambiguous security architecture (on which the techies can build technical solutions); existence of a security governance forum representing the business units; legal; HR; compliance; and audit," Kalwerisky says.

Weight Of Awareness

Before performing costcutting, Kalwerisky recommends that managers be certain that all the likely IT-related risks have been considered and that the cuts are directed to those risks with the least impact

on the business.

"A likely pitfall is the possibility of risk actually materializing. Risks can never be eliminated, only mitigated, avoided, accepted, or laid off," he says. "However, provided the business units—and management—have been made aware of the residual risks after budget cuts, they should be in a position to accept them."

Defend These Against Cuts

An argument can be made for protecting almost any element of IT security against cuts. Some areas are more likely than others to be cut when economic conditions become tough, but Jeff Kalwerisky, chief security evangelist at Alpha Software (www.alpha software.com), identifies one of them that should never be touched.

"Security training and awareness is a critical aspect of information that is often the first to be cut," he says. "Experience shows that the highest risk to a company's information assets is from the inside. This may be due to deliberate malfeasance on the part of employees or contractors, but more often, it is due to simple ignorance of good security procedures. Always maintain the budget for training and awareness."

Worldwide Semiconductor Industry Takes A Hit

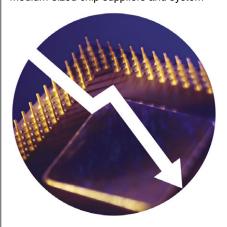
If 2009 turns out as expected for the ailing semiconductor industry, it will be the first time that its revenues will have declined in back-to-back years, according to tech research and advisory firm Gartner.

Global semiconductor revenues in 2008 have decreased by 4.4% from 2007 numbers to \$261.9 billion, according to preliminary figures released by the company. A revised outlook from Gartner now estimates that revenues will plummet to \$219.2 billion in 2009, marking a dizzying 16.3% drop—or up to 24.7% in the worst-case scenario—from 2008. On the other hand, manufacturers that have enacted inventory minimization policies could sweeten that pill somewhat as orders for product replacement come in, says Bryan Lewis, vice president and a chief analyst at Gartner.

Not long ago, the company's forecast anticipated slight growth in 2008 with a 0.2% revenue gain, with a modestly downbeat 2009 displaying a 2.2% revenue reduction. The unprecedented consecutive years of revenue loss will take place, Gartner advised, due to the massive cutback in industry spending in the wake of the economic downturn.

Fourth-quarter 2008 sales of semiconductors may have plunged 24.4% from third-quarter figures, according to the company. The continued slide will have an unfortunate effect on enterprises.

"This downturn will be hardest on small to medium-sized chip suppliers and system



suppliers, as they will have a hard time getting the loans needed to keep their businesses running smoothly," says Lewis.

"Gartner is expecting a number of chip companies to either merge with larger companies or be forced out of business altogether," he adds. "Supplier consolidation is clearly in the cards for 2009."

There is some brightness on the distant horizon, however. 2010 should be a rebound year, with revenue from global semiconductor shipments climbing to \$251.2 billion, a 14.6% recovery. However, revenues won't return to the heights they attained in 2007 until 2011, when Gartner says they could climb 9.4% to \$274.9 billion.

More uncertain is the DRAM market, which has been spiraling downward for a year and a half, Gartner says, with nearly \$12 billion in losses. If the vendors don't get a tighter grip on supply, Gartner research vice president Andrew Norwood warns, smaller producers may be forced to merge or declare bankruptcy. However, the company expects DRAM pricing to strengthen in the second half of 2009, which would help that market's revenues for the year.

by Marty Sems

"Cutting security spending can be tough when security has been a long-underfunded initiative."

- Vormetric's Gretchen Hellman

Cutting Storage Costs

Continued from Page 1

high availability—and should be appropriately located on high-performance hardware. Over time, as usage patterns change, the transactional performance and availability of the data is likely to diminish." He adds that a tiered storage strategy allows IT to "take advantage of a data set's life cycle by progressively moving it to less performance-oriented storage that is cheaper and more power-efficient while still meeting the data set's retention expectations."

Storage Consolidation & Data Reduction

Consolidating storage onto fewer devices can also increase efficiency. Ruth notes that many data centers may have numerous underutilized storage servers or arrays dedicated to a single application that can easily be consolidated onto larger, denser networked systems. Schulz agrees that the relentless advances in disk technology make consolidation onto newer hardware advisable; however, he cautions against overdoing it because higher utilization ratios may adversely affect I/O performance.

Another means of increasing storage utilization is by use of thin provisioning. According to Ruth, "Thin provisioning, sometimes called dynamic or 'just-in-time' provisioning, virtualizes the physical storage space in a storage system by disconnecting the actual physical space available from what is reported as being available to the upstream application or OS." Applications are given a virtual quota, but the storage system only initially allocates a fraction of this space. The advantage, according to Ruth, is "the allocation of a pool of storage space on an as-needed basis

Many data centers may have numerous underutilized storage servers or arrays dedicated to a single application that can easily be consolidated onto larger, denser networked systems.

that is automatically size-adjusted by a storage system to meet the actual demand."

Technology can also be wielded to increase storage efficiency through various data reduction techniques. Compaction, typically through data deduplication, reduces the number of storage elements necessary to represent a given data set. Deduplication can offer impressive compaction ratios, but Schulz notes these only apply to "specific scenarios such as backup of repetitive files while providing little value over a broader range of applications."

Data compression is a more general-purpose technology that doesn't offer such eyepopping improvements but works with any type of data. Like deduplication, compression is a hardware solution, either a dedicated appliance or increasingly embedded directly into a storage system. Both Ruth and Sloan note that the technology is increasingly turning up in primary storage systems.

Short-Term Expenditures For Long-Term Savings

Some of these strategies may require upfront expenditures on new equipment or software, but they can yield substantial long-term ROI. Ruth notes that unless a company has a very rudimentary, simplistic storage infrastructure, many of these features and technologies may already be available, but not enabled, on existing hardware. He adds, "These capabilities [of existing equipment] may already be pretty close at hand."

Defend These Against Cuts

Experts agree that the data necessary for continued business operations is invaluable and should thus be inviolable. Although hardware is easily replaced in the event of a disaster, Burton Group Storage Analyst Gene Ruth stresses that business-critical data is not. He advises IT not to compromise on data protection, integrity, and availability. Greg Schulz, principal of StoragelO, agrees that anything essential to running the business—any core functionality—must be defended from wholesale, unwarranted cuts. John Sloan, senior research analyst at Info-Tech, notes that not everything needs the same recovery time or number of backup snapshots; thus, there may still be ways to save money on archiving by not treating every data set as equally critical.

Storage is one of those vexing IT functions where absolute cost reductions aren't always feasible given incessant growth in demand; however, there are many routes that IT managers can take to both increase the efficiency of storage utilization and reduce the rate of growth. Taking a holistic approach using some strategies outlined above should allow even the most frugal IT department to accommodate swelling needs and maximize the return on their storage investments.

Storage Interfaces

Continued from Page 1

have a built-in migration path when FCoE use becomes more commonplace."

Not to be forgotten is iSCSI. "iSCSI is an ideal protocol for the small to medium-sized enterprise, and now that 10Gb iSCSI is available, the usability is broadening to larger enterprises," says Condre Senior Storage Engineer Harry Montanye (952/294-4900; www.condrestorage.com).

iSCSI is viewed as the affordable alternative to Fibre Channel, and often, in reality, it is. With the improvements in Fibre Channel's implementation and day-to-day operations, the iSCSI vs. Fibre Channel decision is no longer an issue of ease of use. The decision points now are cost, reliability, and scalability.

"Fibre Channel has proven itself to be more resilient and more scalable than iSCSI vs. iSCSI's cost advantages, and as those environments begin to scale, much of the cost advantages go away," concludes Blandini.

Storage Components

2009 will also see change at the storage component level, where the interface choice of Fibre Channel and SATA has been the standard for a few years. "2009 will be the

year that we see a dramatic movement to SAS-based disk drives and a decrease in the use of Fibre Channel disk drives," says Vogt. Montanye agrees, saying, "SAS drives will be the majority of drives used in new storage array purchases, and Fibre Channel drives will be primarily sold to existing users that are not ready to upgrade."

Compared to SATA drives, SAS is a more enterprise-class drive with a deeper queue depth and the provision for dual-ported drives. The deeper queue depth will improve performance and reduce drive latency. Dual-ported drives will allow for two storage controllers to have direct access to the drives for better failover. In Montanye's experience, "While SATA drives can simulate this by the use of a path multiplexer, the dollar cost in using a multiplexer can make SATA drives more expensive than the SAS drives, and [in] removing the multiplexer, you eliminate a point of failure."

"Another advantage to SAS is that its drive connector is interchangeable with SATA," says Vogt, which he says further lowers cost and system complexity. Vogt also believes that we will begin to see a more rapid transition from 3.5-inch to 2.5-inch drives, based on the new SAS II-based drives. He notes, "This will allow for greater density per cubic inch."

Storage Decisions

Options are almost always good for the users. Options let users implement a solution based on what they need as opposed to settling for what is available. The problem with choices is that they have to be analyzed and decided upon. The interface decision is largely dependent on what is currently installed and what the IT staff is already comfortable with. If there is already a Fibre Channel SAN in place, staying on that path and migrating to 8Gb FC will likely have an immediate benefit. It would also position the company to take advantage of FCoE when the time comes (if it makes sense in the environment).

Similar is iSCSI: As more systems support iSCSI and provide tools to take advantage of the additional bandwidth, the obvious path of least resistance is to stay with it if it's the current installation. That said, if there is a need to upgrade, especially if performance is a concern, Fibre Channel should be considered, as well.

The drive mechanisms will, for the most part, take care of themselves. The move to SAS will be part of the normal progression as new storage systems are purchased, and SATA will continue to be the option for the lower-cost tier of storage.

"Flexibility [is] a key feature when selecting your host bus adapter, storage infrastructure, and storage system vendor.

Key Decision- Making Criteria

Ease of use. Most technologies are easier to implement now. Unless you have an existing solution, consider the options equal in this area.

Performance. How much performance you need is more important than how much the technology can deliver. Anything above that is likely wasted.

Reliability. If the connection to storage suddenly stops working, performance and ease of use instantly become unimportant.

Leveragability. Many new storage interface technologies are attempting to use the existing infrastructure. The infrastructure must be modern enough to deliver the performance that these new interfaces demand.

Make sure that these providers have the ability to adapt to and interface with emerging standards as they come to market," concludes Vogt.

It is difficult to know you are picking the right interface. Not only is market acceptance out of your control, but it is also hard to determine what will change internally in your business. The ability to adapt and be flexible is critical.

SECURITY November 28, 2008



eEye Retina OnDemand is a SaaS security vulnerability management package offering rapid deployment of Retina Security Management appliances.

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Upgrading On A Budget

Lessen The Financial Impact Of Server & Data Center Hardware Upgrades

by Elizabeth Millard

UPGRADES TO SERVER and data center hardware are vital for keeping an operation running efficiently, but in a belt-tightening environment, there may be fewer new machines to unwrap in the months ahead at some enterprises.

What tends to take the largest slice of the budget pie is replacing older equipment, such as appliances, servers, routers, and other hardware, before anything starts to sputter or puts the center at risk.

But it doesn't have to feel like the data center cupboards are bare, some experts note, given the amount that can be done with consolidation, virtualization, and other strategies that maximize server and appliance efficiency without causing storage headaches or security issues. Here are some tactics for getting lean without too much sacrifice.

Create Stronger **Database Management**

One of the primary reasons that equipment needs to be upgraded is that it's being used

frequently or, in the case of storage servers, capacity begins to dwindle.

But more robust management tactics within the enterprise, particularly around databases, might help, says Jeff Hartley, vice president of product operations at Terracotta (www.terracottatech.com), a provider of infrastructure software for enterprise Java scalability.

Defend These Against Cuts

Not all aspects of server and data center upgrades allow for cost-cutting. Here are some things you should take care to guard against.

Security appliances. Now is not the time to skimp on the number of appliances necessary for end-to-end security. Defense can come by citing risk statistics from leading security vendors.

Cooling equipment. Even if there are fewer machines in the data center, make sure that in-rack cooling systems and other temperature controls are in place.

Testing lab equipment. Executives may believe that because these servers aren't hooked up to the network, they're just taking up space. Explain in nontechnical language that lab equipment boosts security by creating a controlled environment.

Employee time. Some executives might think that fewer machines means there's less need for support services and IT staff, but defend against losing employees by articulating that a consolidated center needs just as much love and attention as one with numerous machines.

Databases tend to vacuum up a large share of resources, particularly if they need to run on several servers simultaneously. Plus, Hartley has found that companies tend to use databases to store temporary data and then fail to jettison that data when they're finished, creating a strain on their systems.



For example, he notes that someone filling out a multipage online form might have his server conk out on page five of seven pages. The user starts over, inputting the same data, but meanwhile, at the company holding the form, that temporary data

"You're using expensive pieces of hardware for stuff that will be needed for five seconds," Hartley says. He compares the process to books vs. newspapers: People don't carefully keep the daily news on their bookshelves, and they don't transfer the papers to other shelves when their main shelves get full. Yet that's what companies do every day with data, Hartley says.

"Getting better control of how your temporary data is handled can create more ef-

Key Points

- Create more management controls around data and storage before upgrading servers and data center hardware and introduce optimization strategies where relevant.
- Take a close look at how databases are managed, as they tend to take a large chunk of server and storage resources.
- Consider using shared resources rather than allocating servers to specific departments.

that's needed in the center. With fewer pieces of equipment, less upgrading is necessary, and IT time can be channeled instead toward optimization.

"Optimizing the way people use resources is something that every data center manager needs to look at in this changed economic climate," says Tal.

> "You might have services running on public servers, [such as] transactional applications, but they haven't been looked at from an optimization perspective before."

> Many times, he adds, compute cycles can be shaved off, which increases the length of time a server can be kept in the center. Also, this type of scalpel-wielding can highlight which servers are consuming the most resources.

> "Often, you have servers that are overconsuming, and people don't realize it because they're watching the overall consumption levels," Tal notes.

Share & Share Alike

Another tactic that can save a data center from upgrade costs is more use of shared resources, says Tal. At many companies,

he says, resources tend to be put in silos, with each department allocated a certain server or set of servers.

"Even some data centers that have integrated technology haven't adopted shared service models," says Tal. In many ways, it's another form of consolidation, but it also creates flexibility in terms of resource use and helps set more policies for further sharing in the future.

"With multiple servers as one entity, you can run business applications within that pool, and that leads to overall optimization of resources and people," says Tal.

One of the largest roadblocks to shared resources tends to be perceptions rather than technology, he adds. Many businesses are used to divisions between departments

can manage and troubleshoot Mac systems themselves more easily. "The self-management argument resonates very well with over-worked IT managers, and it usually holds true in organizations where there are only a few Macs," DiDio says. "Once you get a serious numbergreater than 20, for example—IT departments are then wise to invest in some training because there are salient differences in

certain applications, such as antivirus packages." In addition to the "big boost" Macs received when Apple moved to using Intel chips last year, she adds, Macs are also well-regarded for their graphics abilities and good integration with baseline Microsoft Office apps.

cated 88% of those polled still run Windows XP in their companies, and only 10% have adopted Vista. Further, roughly 46% anticipated skipping a Vista upgrade and waiting January's MacWorld, and Snow Leopard could possibly beat Windows 7 to market.

by Blaine Flamig



"Getting better control of how your temporary data is handled can create more efficiency between servers and really end up saving you a tremendous amount of money."

-Terracotta's Jeff Hartley

ficiency between servers and really end up saving you a tremendous amount of money," he says.

Consolidate, Virtualize, Optimize

A more holistic view of what's happening with data within the data center can help control costs, and it's likely that the results of stronger strategies will lead many managers to consider virtualization, notes Motti Tal, founder and executive vice president of marketing and business development at OpTier (www.optier.com).

Virtualization (and consolidation in general) is a big cost saver because it reduces the number of servers and other equipment and don't even share a common printer or a copy machine, and that sense of separation can extend to IT policies. But seeing the company as a single unit with many components can reduce the number of servers needed.

"It's hard to argue with the cost savings that come with shared services and shared resources," Tal notes. "The more you consolidate, the better you can optimize and the fewer upgrades you have to do. In a changed economic climate, any investments in new technology have to pay off quickly, so sometimes it's more efficient to work with what you have and see if you can't find a better way to run your center."

Corporate Use Of Mac

If results from a recent survey hold true, the Mac platform will secure a larger presence in the corporate workplace in coming months. In a poll that ITIC (Information Technology Intelligence Corp.) and Sunbelt Software jointly conducted of 700 IT managers and executives, 68% anticipated allowing employees to use a Mac computer as their enterprise desktop system. Only 34% answered the same way in a survey ITIC/Sunbelt conducted eight months previously. Already, 23% of those polled reported having a significant Mac presence in their companies, with 50% planning a larger integration of Apple products, such as iPhones, into corporate settings.

Systems To Pick Up

News

"I can tell you, I've been tracking this trend for the last three and half years," says Laura DiDio, principal ITIC analyst. "So, [the increase] is neither sudden nor drastic." DiDio cites two primary factors, including "the consumerization of IT" and the "popularity of consumer devices like the iPod and iPhone, which are cropping up all over the place." To the first factor, DiDio says end users with Mac systems at home are increasingly asking IT personnel and managers to use Macs in the office—"either their own home systems or one that the company buys." With Mac system prices on the decline, she notes, adopting Macs doesn't pose as big of a hurdle for IT departments as it once did. Further, workers who do convince a company to make the Mac switch often do so on the points that Macs are considered better security options than Windows systems, and end users

As for Windows, ITIC/Sunbelt's survey indifor Window 7's release instead. Rumors also suggest Apple might unveil the next version of Mac OS X (codenamed Snow Leopard) at

News

■ Brocade Acquires Foundry

Brocade, a data center networking and services provider, finished its acquisition of Foundry, which will help the vendor deliver enterprise-class networking Ethernet switches and routers. With the addition of Foundry's products and technology, Brocade hopes to better address the needs of customers. According to a statement from Brocade CEO Mike Klayko, "Brocade will now be able to offer a comprehensive IP and data center networking solution portfolio capable of addressing emerging market technology trends while meeting the needs of the world's most demanding, data-intensive organizations." Brocade indicates the company will keep Foundry's employees and management and move them to Brocade as part of the integration. The Santa Clara, Calif.,-based Foundry has about 1,100 employees.

Fujitsu, Western Digital Deal Off The Table

According to Japanese trade publication Nikkei, acquisition talks between Fujitsu and Western Digital are off. The financial daily quoted Fujitsu President Kuniaki Nozoe in late December as saying that although his company has had talks with Western Digital, there remains "zero chance" that Fujitsu will sell its hard drive business to Western Digital. The companies have reportedly been in talks since at least October on such a deal, with Fujitsu looking to sell both its foreign and domestic hard drive factories. According to Nikkei, Fujitsu, which has a 20% share of the hard drive market, recently sought about \$550 million for its business after initially asking for \$700 million in October. Reps from Western Digital have dismissed the Nikkei report as rumor.

Micron Posts Losses, Remains Positive

Memory maker Micron announced results for its first quarter of fiscal year 2009, reporting losses of about \$706 million, or 91 cents per diluted share, amounting to a 4% decline from the previous quarter. The company believes its



losses were indicative of the competitive environment of the memory segment right now.

Although a 15% decrease in gigabits in inventory indicat-

ed positive steps, sharp decreases in average selling prices (34% for DRAM and 24% for NAND) hurt the company's bottom line. Net sales were \$1.4 billion; the company retains cash and investments valued at \$1 billion. The company maintains a positive outlook, however, pointing to its cost saving measures, increased shipments of multichip packages, and recent acquisition of Inotera Capacity.

Dell Reorganizes, Loses Two Executives

The business wing of Dell will reorganize globally, the company announced. Instead of geographical organization, the new alignment will focus on three worldwide business units. The Large Enterprise group will be helmed by CIO and Global Services President Steve Schuckenbrock. The Public group, which will address government, health care, and environmental concerns, will be led by Dell Americas President Paul Bell. The Small and Medium Business unit will be chaired by Steve Felice, currently president of Dell Asia-Pacific and Japan. In addition to the reorganization, Dell will experience change in the form of departing executives: Chief Marketing Officer Mark Jarvis and President of Global Operations Mike Cannon are both stepping down. Cannon will be replaced by Business Client Product Group leader Jeff Clarke, and both Cannon and Jarvis will serve as consultants in the future.

Save Money On Software Licensing

Tap Into Undiscovered Savings With Assessment & Software Alternatives

by Bruce Gain

THE PRESSURE IS ALWAYS on to cut software costs, and admins are increasingly expected to do more with less. But reducing software licensing costs doesn't have to be another source of pain; instead, you can seek ways to get rid of truly wasteful spending without negative effects. Many small to midsized enterprises could remove a good chunk of their IT budgets by eliminating unneeded software licensing costs, freeing up more money to invest in software that is really useful instead.

"I once saw a 50,000-user enterprise [that] was losing about \$15 million in software licensing waste a year. They were losing \$1 million alone per year on Acrobat, and the list goes on," says Chris Boswell, a principal at FourSquare Innovations (www.foursquareinnovations.co.uk), a Web services and training firm with customers in Europe and the United States.

A 250- to 1,000-user enterprise could easily have proportionally similar levels of

waste, Boswell says. "It all feeds back in to the way new licensing requests are authorized, training and support cost management, and use of the software, meaning avoiding paying all of this money without getting the use out of it," Boswell says.

A Centralized Policy

Determining which software licensing costs can be eliminated first requires a centralized approach that assesses all software that the enterprise has in place, the associated costs, and the licensing terms. Taking this first step alone represents an almost about-face compared to policies and practices of many enterprises, says Michael Rasmussen, president of research firm Corporate Integrity.

"Enterprise software is largely unmanaged as an asset. Most organizations have little formal idea of what they're entitled to use, what they're using today, and whether the licensing models are best aligned with the needs of the business from an ROI and cost perspective," says Rasmussen.

Defend These Against Cuts

Although the object is to cut software costs, realize that you absolutely must defend some applications from cuts. To determine what cannot and should not be tampered with, determine whether or not there is any business criticality associated with the software, says Bill Snyder, a research vice president at Gartner. "The platform that runs your yearend processing for closing the books on time is not a system that most organizations think [is] wise to eliminate because if failure happens, then the results are [catastrophic]," Snyder says. "Things are rocky enough these days already without delaying the closing of your books and making people think you have problems."

"Because of this, the business areas can't truly appreciate the relative investments they're making in this very large part of the enterprise's IT budget."

It is thus necessary to centralize software license management and contract negotiation and to "formalize the business-user roles tied to usage of sets of applications," Rasmussen says. "Document entitlements in structured form. . . . [Improve] your enterprise software investments and negotiations with software asset management practices and technologies to track inventory and ongoing detailed usage statistics, including types of licenses/usage and use of specific features/options," Rasmussen says. "Then, apply detailed usage reporting to improve charge-back to lines of business and to create better linkage between return and expense."

What You Really Use

A centralized software management policy should be the basis on which you later determine how to save costs. And one of



the more immediate ways that enterprises pay perhaps hundreds of thousands of dollars in unnecessary licensing fees per year is when software, for various reasons, is bought and paid for but is left unused.

In many instances, software that is left unused was never necessary to begin with.

"Are we really using that software? That simple question can reap great rewards," says Bill Snyder, a research vice president at Gartner. "A lot of organizations buy software at a discount and find out that what

Key Points

- Assess all software that is in place, the associated costs, and the licensing terms.
- Determine how much the software you are paying for is really being used—or not used.
- Consider freeware options for basic applications but beware of potential drawbacks, such lack of third-party support.

sake the new application after a significant investment in an upgrade has been made, Snyder says. "We see applications that were supposed to have been retired, such as replacing software with cloud computing applications, but at the end of the project, the users say they need to use the old version for six months or a year, and five years later, the old software is still being used. In that case, nobody has bothered to look at the project to make sure that it was finalized."

Often, software licenses are renewed by default with little thought paid to how useful the application is, Snyder says. "There is the safety factor, which is if you don't know if someone is using a product, then you will renew it," Snyder says. "From a

job security point of view, people think it is safer to renew the license than the prospect of some business failure of a process that you are left on the hook for."

It is not unusual for organizations to realize 5 to 10% savings by eliminating waste after comparing what they are paying for to what software is actually used, Snyder says. "We get anecdotal evidence of organizations that save substantially more than that 10% mark."

Freeware Advantages & Risks

As its name implies, freeware can serve as an alternative at no or little cost compared to commercial offerings. For low-level applications, perusing the freeware options is almost always a good idea, Boswell says. "In some cases, there is a freeware or

open-source alternative that is perfectly good," Boswell says. "If you have Acrobat Professional for hundreds or thousands of users and all they are doing is using it to create PDF files and you are not going to be programming PDF forms using Java-Script or creating complex documents, then use the free software instead."

However, for some applications, there are risks, such as finding adequate support and training. "If you switch over an entire organization to OpenOffice, for example,

Determining which software licensing costs can be eliminated first requires a centralized approach that assesses all software that the enterprise has in place, the associated costs, and the licensing terms.

they thought they really needed was not really necessary. Then there is excess capacity, where you thought you needed 100 users and you actually only have 50."

Many enterprises also struggle with users who continue to use old software and for-

you are going to have many people who have never seen it before, and finding the training can be an absolute nightmare," Boswell says. "Without the required training and maintenance, the cost benefits are often not there."



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PRODUCT OF THE WEEK

The Importance Of Backing Up

CMS Products' BounceBack Stays On Top Of This Often-Neglected Task

 $by\ Holly\ Dolezalek$

BACKING UP DATA is like wearing a seat belt: Everyone knows they should do it, but not everybody does. When Harris Interactive and Symantec surveyed computer users, they found that 43% of respondents never backed up their computers at all. These weren't babes in the woods, either; one-quarter of the people who said they didn't back up also said that they had had a computer crash before in which they lost data.

Threats extend outside of the enterprise walls, as well, as every year there are more employees who work remotely or travel extensively. Those employees are saving a lot of company data—presentations, brief-



PRODUCT OF THE WEEK

CMS Products BounceBack Ultimate

Description: BounceBack Ultimate is a disaster recovery and backup software that saves a duplicate image of a user's data, settings, and other customizations and lets the user reboot from an external drive. Its open file technology means that even open files will be saved so that users can recover even from a hard drive failure with no data loss.

Interesting Fact: The company doesn't go by its full name very often, but for those who are curious, the letters stand for Corporate Management Solutions.

(800) 327-5773 www.cmsproducts.com

ings, reports, and more—on personal computers that they haven't backed up.

A New Solution

CMS Products (www.cmsproducts .com) targets computer users in need of easy, dependable backup software. Headquartered in Costa Mesa, Calif., the provider of backup, recovery, and security products has been offering its Bounce-Back backup and disaster recovery software for five years. Its Express, Professional, Enterprise, and Server versions run scheduled or manual backups to local or mapped network drives, and all but the Express version offer more advanced features such as synchronization, versioning, and drive formatting.

This month, CMS will introduce BounceBack Ultimate, the latest iteration of the series. Like previous versions, Ultimate creates a duplicate image of a computer's system on an external drive so that any and all data can be retrieved in the event of a crash. Ultimate will also offer a crucial new ability: rebooting from the external drive. "This is especially helpful when the disk becomes mechanically unstable or when a corrupted DLL or a virus prevents startup," says Gary Streuter, vice president of marketing for CMS. "With Ultimate, users can start their computer from the external drive and have the operating system, applications, data, [and] even their personal settings back."

Streuter compares Ultimate to having a spare tire, which puts users in the position of getting going again and then addressing the failure on their own time instead of on an emergency basis. It can also create multiple backups of the same computer on different devices or networks. Although leaner versions of the software sell in the retail market—a version called PC Recovery will also be available soon for home users—CMS is pursuing the client side of large corporations, government, and small businesses with Ultimate, which will be available bundled with its external drives. as an individual application, and on a licensed basis.

Ultimate has open file technology, which means that unlike other backup and recovery software, it backs up all data, including that from open applications and files. Ultimate will also offer versioning (the ability to go back to previous versions of backups and retrieve files that have since been deleted), compare lists (the ability to compare which files are in the backup and which are in the source drive), and file or folder encryption.

Fulfilling Backup Requirements

Alan Dayley, research director at Gartner, says that the most important features of backup and recovery software are the ability to run in the background without being user-driven, a familiar directory structure so that users can easily find lost files, and the ability to restore the desktop as it was before the disaster—not just the data but also user settings, favorites, and other customizations.

"It should also have that open file capability that takes a snapshot of open files without waiting until they're closed to back them up," Dayley says. "Most people don't close Outlook all day, and some don't close it all week, so users can lose a lot of changes if it doesn't get saved incrementally."

Dayley says that ideally, it should back up automatically every time a user saves a file. That option is in beta testing and will eventually be part of Ultimate, Streuter

"That incremental approach of regular backups throughout the day instead of one big one once a day is also nice from a bandwidth standpoint for companies that have hundreds or even thousands of PCs being backed up," Dayley says.

Users don't fail to back up their data because they want it to be lost, of course. Complacency drives some of the failure to back up, but other factors play a part, as well. For example, Dayley explains, early iterations of backup software tended to be clunky, and the slow PC performance the software caused annoyed users enough that they stopped bothering with it.

"On one side of the scale is the fear factor, or the implications of losing data," he says. "But on the other side is the management headache: How hard is it to get the software configured and manage the ongoing process? It's a no-brainer once you crash; then you'll do anything to get it back. But the setup and management before the crash is not a given."

A Growing Market

The market for these products is still immature, although the overall backup and recovery market is sizable—about \$2.5 billion, according to Dayley. But, he says, the lion's share of that market is in servers rather than individual PCs. He estimates that the market for specifically PC-related backup and recovery is about \$100 million, although he points out that it's hard to say how much of that is individual or site license purchases and how much is software that comes bundled on external hard drives.

"I'd expect this market to grow by three to four times over the next five years," Dayley says. "The ease of use means it makes sense to do it, and there's a compliance piece, as well, in that companies are supposed to save their emails and data for a certain amount of time. They've covered that on the server and PC side, and it's coming down to the notebooks [now]."

Fortunately, Dayley says, adoption of backup and recovery products is likely to increase as users understand that the new generation of products, such as those from CMS, is faster and more agile. "[Bounce-Back] is a solid product, and I think the implementations will speed up as people realize that," he says.

BounceBack Pricing

Format	Version	On CD	As Download
Windows	Professional	\$79	\$69
	Express	\$39	\$29
	Enterprise	\$149	\$139
	Enterprise Server	\$295	\$285
	Ultimate	\$99	N/A
Мас	Professional	\$49	\$39
Мас	Professional	\$49	\$39

STORAGE November 21, 2008

Enhanced Backup Options For SMEs

Yosemite Backup 8.7

No company doubts the importance of backing up data. It's a crucial aspect of ensuring that a company's data is kept safe. Yosemite Technologies' Yosemite Backup application has been offering a backup solution for companies since the early 1990s.

Yosemite Backup is designed to be simple to purchase and upgrade and supports a range of platforms, including the latest Windows OSes, NetWare, and Linux. Another mainstay feature is the ability for companies to purchase a single backup server to

facilitate their backup needs instead of needing to acquire several.

The latest version of the application, Yosemite Backup 8.7, includes support for Windows Hyper-V and VMware ESX. It also supports Windows PE 2.1 for Vista and Windows Server 2008 disaster recovery.

Yosemite Backup 8.7 is designed to enable current customers to seamlessly update their environments while allowing new customers to easily add the applica-

tion. Users can implement push technology to update their Master Backup Server while automatically having updates installed on all deployed backup clients. Also included is support for SAN and shared devices, as well as Windows services, including Microsoft DFS, Active Directory Lightweight Directory Services, SharePoint 3.0 SP1, and Exchange 2007 SP1.

The Yosemite Backup software development kit version 1.0, which provides access to the API on which Yosemite Backup is based, is available on approval. Yosemite Technologies Backup 8.7 allows companies to purchase a single backup server to facilitate all their backup needs.

- Yosemite Backup Standard Master Server with Yosemite Care for Windows, Linux, and NetWare: \$811
- Yosemite Backup Windows Unlimited with Yosemite Care: \$1,249
- Yosemite Backup Universal Unlimited for Windows, Linux, and NetWare with Yosemite Care: \$2,499
 (408) 737-3311

www.yosemitetech.com





Product Releases

Do you have a new product that data center/IT managers would be interested in learning about?

Send your press release or related product information to press@processor.com.

CLIENTS

■ Lexmark T650, E260, E360 & E460 Monochrome Laser Printers

Lexmark has released four series of monochrome laser printers that include such value and eco-conscious features as standard two-sided printing, an Eco-Mode to reduce power consumption, and the Lexmark Cartridge Collection Program for recycling cartridges. The T650 series models are priced from \$699 to \$1,629 and are designed for high-quality print jobs and handling such media as labels and lower-grade papers. Print speeds among the 650 series models range from 45



to 55ppm. The compactly designed E-series models, meanwhile, are targeted at small and medium-sized enterprises and offer print speeds that range from 35 to 40ppm and prices ranging from \$199 to \$699. All E-Series models include integrated automatic two-sided printing and an instant warm-up fuser. The E260dn, E360dn, and E460dn models are network-ready, while the E460dw includes Wi-Fi printing support.

■ NextComputing NextDimension Evo, Evo HD & Vigor Evo HD

NextComputing has announced that its portable, durable PCs, including the NextDimension Evo, Evo HD, and Vigor Evo HD, will now feature removable hard drives. The NextDimension Evo is hot swappable and designed to transfer data between operating systems or allow for drive replacement. The bootable 2.5-inch SATA HDD offers up to 320GB of disk storage with up to 3TB of optional capacity. The Evo HD features an integrated 17-inch LCD display, I/O functionality, quick-time HDDs, and 4-slot midplane options. The Vigor Evo HD weighs less than 20 pounds and includes optional fold-out HD monitors. This form factor also supports dual-core and quad-core AMD Opteron processors.

■ Prism Microsystems EventTracker 6.3

Prism announced the newest version of its security information and event management solution, EventTracker 6.3. Version 6.3 integrates real-time log management, correlation and analytics, change management, USB monitoring, and automatic remediation. It also features a Google-like interface, easy access to the Prism Knowledge Base, and various options to simplify searches. Users can also enable profiling with User Activity

Monitoring Knowledge Packs, support batch transfers with Direct Log Archiver, and support SHA-1 encryption.

■ Protech Systems PS6508

Protech Systems has introduced the PS6508 high-performance POS terminal, which includes an Intel 910GMLE chipset that supports Intel Pentium M or Celeron M processors. The PS6508 high-performance POS terminal also operates quietly and has a waterproof 15-inch TFT LCD with ELO 5-wire resistive touchscreen, along with several standard and optional enhancements, which include wireless networking, a Compact-Flash memory slot, and magnetic swipe card reader. The PS6508 POS is compatible with WEPOS, Windows 2000/XP/XPE, and Linux OS and includes a flexible design in order to support a broad range of applications.

XAware 5.2

XAware has released XAware 5.2, an open-source data integration product used to create and manage composite data services. The company says upgrades in this release give developers new design choices aimed at making it easier to design and deliver data services for SOA (service-oriented architecture), RIA (rich Internet applications), and SaaS scenarios. Among the additions is a data-first feature that uses aspects of the Eclipse Data Tools Project, Connection Profiles, and Data Source Explorer to let users create data services by beginning with data sources. This bottomup design is suited for data-oriented developers and architects, the company says. XAware also provides an option to start a design process with XML Schemas or a top-down design. XAware has also added a new service-design wizard for newer users, a new outline view, better search functionality, and more run-time query control.

NETWORKING & VPN

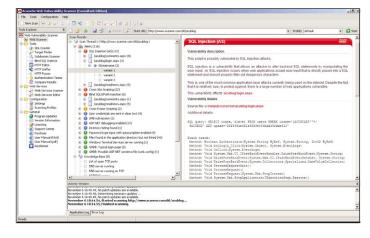
■ Asure NetSimplicity Mobile Workforce Manager

Asure Software announced the release of the newest version of its NetSimplicity hotel scheduling software, Mobile Workforce Manager. Mobile Workforce Manager now includes features that allow users to log in directly from mobile devices, as well as mobile check-in and booking and other mobile features that can be used with any Windows Mobile device. The software comes in two editions, Pro and Enterprise, the latter of which includes a telecommunications transfer capability.

■ DataCore Software SAN Starter Packages

DataCore Software announced a line of SAN starter packages that are priced for small to midsized enterprises. DataCore's new packages provide true auto-failover/ failback high-availability and fault tolerance. The SAN starter packages provide automated storage protection to ensure business uptime and help lower the cost and complexity barriers of SAN storage for Microsoft Hyper-V, Citrix, Virtual Iron, Parallels, VMware, and other virtualization environments. Pricing for the software package starts at less than \$2,000 per server, including thin provisioning, data migration technology, storage performance caching software, snapshots for fast disk backups, remote-site disaster recovery replication, and DataCore's High Availability data protection. The software uses existing storage investments and runs on virtually any Intel/AMD hardware platform or on the VM itself.

SECURITY November 21, 2008



Acunetix Web Vulnerability Scanner v6.0 performs automated scans and displays vulnerabilities found.

Small Business edition starts at \$1,445; free version available (888) 593-5285 www.acunetix.com

Is Your Web Site Hackable?

Acunetix Web Vulnerability Scanner

Web site security is possibly today's most overlooked aspect of securing the enterprise and should be a priority in any organization. Hackers are increasingly concentrating their efforts on Web-based applications, as insecure Web applications provide easy access to back-end corporate databases and also allow hackers to perform illegal activities using the attacked site

Acunetix Web Vulnerability Scanner automatically checks Web applications for known Web vulnerabilities, including SQL injection, XSS (cross-site scripting), and others. Concise reports identify where Web applications need to be fixed, enabling organizations to protect themselves from impending hacker attacks.

Acunetix has a sophisticated vulnerability detection engine that comes with the pioneering AcuSensor Technology. This is a new security

technology that allows developers to identify more vulnerabilities than with a traditional Web Application Scanner, while generating fewer false positives. In addition, it indicates exactly where the vulnerability is within the code and reports debug information. It also locates CRLF injection, code execution, directory traversal, file inclusion, and authentication vulnerabilities.

Acunetix Web Vulnerability Scanner is available in three versions: A Small Business version for one nominated Web site; an Enterprise version to allow for scanning of an unlimited number of Web sites; and a Consultant version, which allows users to perform penetration tests for third parties.



Instantly Search Terabytes of Text



- dozens of indexed, unindexed, fielded data and full-text search options (including Unicode support for hundreds of international languages)
- file parsers / converters for hit-highlighted display of all popular file types
- Spider supports static and dynamic web data; highlights hits while displaying links, formatting and images intact
- API supports .NET, C++, Java, databases, etc. New .NET Spider API

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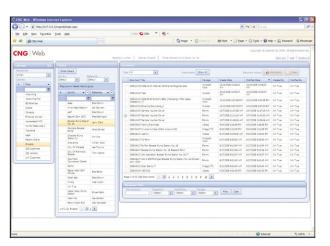
- "Bottom line: dtSearch manages a terabyte of text in a single index and returns results in less than a second" – InfoWorld
- "For combing through large amounts of data," dtSearch "leads the market" – Network Computing
- dtSearch "covers all data sources ... powerful Web-based engines"
 eWEEK
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CLIENTS November 21, 2008



Cabinet NG's CNG-WEB provides instant and secure access to clients files.

(256) 258-0460 www.cabinetng.com

Access Essential Business Documents

Cabinet NG's CNG-WEB

Cabinet NG's CNG-WEB lets users easily access essential business documents anywhere, anytime using a standard Web browser. This extends the security of CNG-SAFE, Cabinet NG's Shared Access Filing Environment, to let users safely access and search cabinets and folders and view and print documents from virtually any location.

CNG-WEB is an easy-to-use and economical online extension of a small enterprise's document management system. The system automatically enforces security and controls access rights for all users. Files and folders are only accessible by authorized users.

CNG-SAFE's automated document management platform gives businesses all they need for electronic document management in a single package—advanced data protection, state-of-the-art user interface, and the ability to integrate with most third-party applications.

Small enterprises can replace paper and boost accessibility and insight with automated electronic workflows that streamline internal processes, making filing, locating, and sharing documents simple, seamless, and secure.

CNG's user-friendly document management solutions streamline user tasks, delivering gains in office productivity and bottom-line savings. By creating a secure electronic filing environment, CNG's products move manual paper-based procedures into efficient automated workflow processes. CNG integrates document management with popular business applications, creating a central repository of business information that powers more effective business processes.



Product Releases

■ Synology DS209+

The DS209+ from Synology is a new NAS server with room for two SATA hard drives. It's suitable for network backup, surveillance camera storage, site hosting, file downloading, and more. The DS209+ comes with a Gigabit Ethernet port, dual USB 2.0 connectors, and an eSATA expansion port, plus support for RAID 0 and 1 with throughput speeds of up to 42MBps (read) and 36MBps (write). It lists for \$499 without drives.

PHYSICAL INFRASTRUCTURE

■ Tripp Lite AVBAR10, AVBAR8, AVBAR6, AV810 & AVSWIV6 Surge Suppressors

Tripp Lite launched five new surge suppressors ideally suited to the demands of audio/video equipment and applications. The three new Platinum Series A/V Surge Suppressors, the AVBAR10, AVBAR8, and AVBAR6, feature up to 10 AC outlets; telephone, modem, and Ethernet jacks; and Tripp Lite's Isobar surge technology to protect connected equipment from up to 3,384-joule surges. Platinum Series A/V Surge Suppressors also come with up to \$500,000 Ultimate Lifetime Insurance coverage. The two new Gold Series A/V Surge Suppressors, the AV810 and AVSWIV6, protect against 3,345joule surges, feature up to eight AC



outlets, and include up to \$250,000 Ultimate Lifetime Insurance coverage for connected components.

SECURITY

■ SECNAP Network Security Email Security Gateway Powered By SpammerTrap

SECNAP Network Security has announced that its Email Security Gateway Powered By SpammerTrap product now has advanced reporting functionality. Email Security Gateway is designed to protect users from mail-borne viruses, worms, DoS and DHA attacks, spam, and other malware, as well as provide a robust array of reports for client administrators and end users. The new reporting capabilities include graphs and charts for at-a-glance analysis and enable clients to produce virtually any report they might need.

SERVERS

■ Nexcom DNA1500 & DNA1501

Nexcom has released two new solutions for SMEs based on MIPS64 technology: the DNA1500 and DNA1501. Both products include RMI XLS204 and XLS208 SOC processors. These feature IDS (intrusion detection systems) and IPS (intrusion prevention systems). Both platforms support dual MIPS64 XLS cores, 32K/32KB L1 cache with 1.2GHz operation, and eight fine-grain threads. Using the autonomous compression/decompression engine, the DNA1500 and DNA1501 free processing space and streamline throughput. Additionally, both platforms offer 128MB of flash storage, a 1GB DDR2 slot, firewall protection, antivirus, and VPN.

PHYSICAL INFRASTRUCTURE

November 21, 2008

Data Center Cooling Solution

Simplex Isolation Systems AirBlock

Data centers must be kept cool to achieve maximum operating efficiency and ensure against disastrous malfunction, computer crashes, and loss of data. Unwanted mixing of warm air and cold air is one of the key factors contributing to energy waste.

That's why data centers need a way to reduce data center cooling costs by directing cold air where it is needed most—through the computer racks. AirBlock curtains and strip doors from Simplex separate cold air and warm air aisles, maximizing the dynamics of airflow to cool your data center. A system can pay for itself in months

- Save energy on both air conditioning and fan systems—15% and 67%, respectively, according to a study by the Lawrence Berkeley National Laboratory.
- The AirBlock product line includes transparent curtains, strip doors, panels, and patented hardware, letting you create a solution specific to your needs.
- Specially formulated vinyls are low-outgassing and antistatic and meet ASTM and NFPA fire retardancy requirements.
- Hardware is also designed so curtains fall away in the case of fire, allowing fire sprinklers full operating range.

Simplex also manufactures hardwall systems with rigid, transparent panels, offering even more containment and greater ability to direct cool air. All Simplex products and systems are designed to meet ASTM and NFPA fire retardancy requirements.



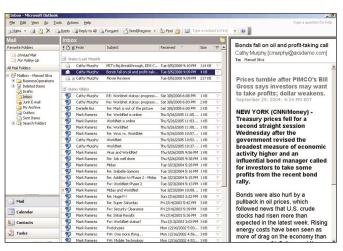
Simplex Isolation Systems AirBlock curtains and strip doors separate cold and warm air aisles, maximizing airflow.

(800) 854-7951 www.SimplexIsolationSystems.com

SIMPLEX TO STRIP DOORS INC

Messaging & Telephony

November 21, 2008



AXS-One Dynamic Data Migrator is designed to make email, calendar, and email contact migration more efficient.

(800) 828-7660

www.axsone.com

Fmail & Data Migration Get A Shot In The Arm

AXS-One Dynamic Data Migrator

Data migration from one email platform to another can be an unwieldy process, requiring a great deal of planning and preparation, not to mention an abundance of resources. For example, different platforms allow different inbox sizes, creating a potential nightmare for employees who want to retain all their old emails after conversion and migration is complete.

AXS-One's Dynamic Data Migrator application offers a policy-based method of migration designed to solve this problem. Dynamic Data Migrator lets users retain their recent emails after migration, but it also creates a way for people to retrieve older emails instantly without requiring administrators to keep them all on local servers

This helps relieve pressure on IT departments to create and maintain additional storage after

the migration. Emails that are more than two years old are available to users via a Webbased portal. Overall, Dynamic Data Migrator helps users maintain access to information necessary for doing business.

AXS-One has added new features to Dynamic Data Migrator: the company partnered with CASAHL and Unify to offer a best-of-breed approach to migrating calendars, contacts, and applications in addition to email. The partnership is also designed to provide effective co-existence with Lotus environments. The new enhancements will be available in Q1 2009.



OPINIONS

i2 Technologies. Since joining Info-Tech,

including Internet telephony, NAS, and

enterprise applications.

Goodall has written on a variety of IT topics,

Virtualization, Robber Barons & The Computing Cloud

As economic conditions worsen, the tech world is abuzz with two new concepts: virtualization and the cloud. Combining these two concepts is driving vendors and analysts into climaxes of utopic speculation. The whole thing sounds very 1999, but it is less 20th century dot-com than it is good old-fashioned 19th century Rockefeller-style robber baron speculation.

21st Century Technology: Virtualization

Virtualization has emerged as a technology for server consolidation. IT leaders have traditionally over-provisioned servers to account for peak loads, and this over-capacity represents wasted resources. Virtualization enables IT managers to abstract servers from hardware, giving them the ability to mount multiple virtual instances on a single physical server and to dynamically allocate resources to these virtual servers as loads increase.

Virtualization has abstracted software from the physical layer. Pundits note that computing capacity is becoming a commodity. They claim that in the future, enterprises will be able to host their own capacity or go outside the enterprise to purchase capacity from the cloud. Computing will become, like electricity, a commodity. This future includes a scenario where data centers can become net providers of computing by selling spare cycles back into the cloud. And what CIO isn't tempted by the promise of becoming a profit center?

It sounds great, but there's a catch.

The Robber Baron Cloud

This vision ignores the institutional effort required to create a commodity, particularly one where consumers are also producers. In the current vision, the cloud essentially means Google, Amazon, Sun,

or Microsoft, and each has its own understanding of the "cloud." This vision isn't, however, 21st century; it's 19th century. It speaks to a time when you could get steel, but only from

Andrew Carnegie; oil, but only from John Rockefeller; or electricity, but only from Thomas Edison. It speaks to a time when to be in business meant wearing starchy collars on wool suits and working 60 hours per week. Not my idea of utopia.

The cloud needs to mature. It needs to develop the controls that emerged in the wake of the robber barons. Like steel and oil, commodity computing in the cloud will mature only when the following things happen:

Standardization. Creating a commodity requires standards. Electricity couldn't exist without the popularization of alternating

current or standard voltage, and cloud computing needs similar standards. Virtualization players such as VMware and Citrix should heed the lessons of Thomas Edison. Standardization can be incredibly difficult. Even such banal items as the standardized threads on bolts hide backstories of intrigue and conflict.

Anonymization. Enterprise information is notoriously sticky. It is a key element of issues such as regulation, litigation, and knowledge. Commodities are agnostic to these issues. Cloud computing must be a mar-



ket of bits, not of information, and if there are differences in bits, they must be regulated with the use of standards. Think of diamonds: Where a diamond comes from is less impor-

tant than its weight or its brilliance.

Rating agencies. There must be some assurance of service characteristics of the different providers. Agencies such as Moody's and Standard & Poor's emerged to meet the needs of the robber barons. If every data center becomes both a consumer and a producer of computing, we will need something similar.

Liquidity. There must be both sufficient demand and sufficient supply to ensure that a market actually functions. We need more players in the marketplace and an efficient mechanism for brokering those transactions. The financial exchanges of Chicago and New York served a similar role for Carnegie and Rockefeller.

A market maker. The market needs someone to set prices and improve the efficiency of a market for cloud computing. The 19th century scions could do little without key individuals such as J. P.

Introducing The New Market Reformers

So who can meet these criteria and drive the cloud vision? I doubt it will be Google, Amazon, or Microsoft. I recently talked to two CIOs who were exploring various outsourced options for their offsite disaster recovery plans. One particular provider quoted them both astronomical prices. The CIOs later met at an industry event and realized that they had compatible operating stacks. Within a few weeks, both had signed an agreement to each serve as the other's (very affordable) failover site.

The provider was in the perfect position to enable the cloud. It could have brokered the transaction by ensuring standardization and anonymization, by rating each of the providers, and by serving as the market maker. It is these existing hosting providers that will move us beyond the current vision of the robber baron cloud. They just have to focus on the basics of 19th century industry.

And if I'm wrong, I promise to trade in my khakis and golf shirt for wool and starch . . . at least for one day.

> Send your comments to infotech@processor.com



News

Cellular Communication Options For The Enterprise

Preparing For A Mostly Mobile Workplace

by Chris A. MacKinnon

REACHING YOUR CO-WORKERS has never been easier. With the advent of cellular communications in the enterprise, business is simply a cell phone call away. According to Pejman Roshan, co-founder and vice president of marketing at Agito Networks (www agitonetworks.com), cellular communication is extremely prevalent in the enterprise today. "How many enterprise employees do you know who don't carry a company-issued or personal cell phone to work? I would venture to guess that number to be small. Enterprise workers are increasingly mobile and reliant on their mobile phone," he says.

Roshan says a few years ago, it was predicted by IDC that 28% of employees used their cellular phones as their primary business phones. "Today, however," Roshan says, "Gartner predicts that the number of enterprise mobile phones in North America will overtake the number of fixed access lines, teleworkers, and desktop phones by 2011. And Forrester predicts that by 2012, 75% of workers will be mobile."

Andrew Wilson, executive vice president of sales and marketing at Strata8 Networks (www.strata8.com), says going by last year's analyst numbers, wireless was 20 to 30% of the telecom spend. He says this number is growing. "Take a look around your office and see how many people are speaking on their cell phones when they are within a meter of a desk phone. Why is this? Don't they know the desk phone is more economical than the cell phone? The answer: convenience. Your email contact list is even on your cell phone. I don't know where you are or when you'll be at

Cellular Routers

Cellular routers (also known as 3G routers) are routers that incorporate a cellular data modem. They provide shared Internet access by Ethernet and Wi-Fi interfaces. Cellular routers can be compact (the modem and the router are the same device) or modular (separate modem is connected to the router). They can serve as a WAN link to remote locations or as a secondary option if a primary cabled link fails.

your desk, but I know you are carrying your cell phone right now."

Leased Lines

Depending on who you talk to, the enterprise has several options for getting rid of expensive leased lines.

Chris Rising, sales manager for Kyocera Wireless (www.kyocera-wireless.com), says from a data perspective, if enterprise customers want to eliminate leased lines, they can support their needs with data cards that allow them to use up to 5GB of data per month. Rising says data cards come in three different form factors: PC Card, Express, and USB. "With a simple inexpensive device, you can be connected at the office but can also access email, documents, and even office servers anywhere while on the road with speeds that rival typical highspeed connections," he says. "A service such as BroadbandAccess from Verizon Wireless can allow customers in Rev. A coverage areas to download a 1MB email in as few as eight seconds."

In Roshan's opinion, however, the most pervasive and compelling option today is SIP peering. He says for a fraction of the cost of a leased circuit, an enterprise can use its existing Internet connection for business connectivity. "Use of cellular phones is also an option, but enterprises are telling us they prefer to own the mobile number, as opposed to an employee owning the mobile number—and with that, prefer to have an enterprise number associated with the employee," he adds.

Wilson, on the other hand, says from a wireless point of view, there is no option for the enterprise. "It depends on the application," he says. "Using an EVDO (Evolution Data Optimized) Rev. A modem and router as a backup route to MPLS is a viable application for continuity of service. WiMAX backhaul for small workgroups with low bandwidth needs is also a viable application." From a voice point of view, Wilson says inbuilding wireless phones could replace desk phones, but they will still need SIP trunking.

Cellular Routers

Some companies are turning to cellular routers to replace their expensive leased line frame relay or MPLS setups. According to Roshan, cellular routers or gateways are gaining in popularity these days.

He comments, "They do have significant usability challenges, but in these economic times, the cost savings they provide are significant to an enterprise's bottom line. Experience shows us that enterprises will find a way to deliver mobility and save money, which is why I suspect cellular routers and gateways are taking off."

Rising says cellular routers are gaining popularity mainly because of cost and flexibility. He explains, "Today's wireless routers . . . are far more powerful than mobile routers of the past. They can support so many small-business needs that it is now a viable option from a technology standpoint. These devices are also very inexpensive in comparisons to leased lines." Rising says data plans from carriers are also dropping in price, with some carriers offering a 5GB plan for just \$59.99 per month. He says this setup will not work for all enterprise businesses, but those that can capitalize on this are seeing sizable cost savings on a monthly basis.

Wilson, however, does not recommend cellular routers. "You're only going to get DSL speeds out of it, and the latency doesn't support certain streaming applications, so I don't recommend it," he says.

Here To Stay

At any rate, Roshan says reliance on mobile phones, and thus cellular communications, will be an ever-growing need in the enterprise. "More and more enterprises are turning to mobile convergence solutions to offload employee cellular usage when indoors," he says. "With a Wi-Fi-based solution, which also pushes PBX and desktop phone functionality to employee mobiles, enterprises can realize significant cost savings while providing greater coverage and accessibility for employees." Roshan says these solutions also preserve desk phone numbers on the cellular phone, so users can be reached anywhere, on any phone, with a single call to the enterprise number. "They make it easy for enterprises to mobilize their teams while reducing cellular costs," he says.

Rising says both cell phone and data card usage will continue to grow. He concludes, "Businesses have to be in constant communication with their customers and employees in order to be competitive, and wireless devices provide just that. We are even seeing more businesses that would typically have a desk and cell phone for each of their employees transition into only supporting a cell phone to help reduce costs."

Chinese Court Sentences 11 Counterfeiters Of Microsoft Software

The Futian People's Court in Shenzhen, China, has sentenced 11 "ringleaders" of a Chinese counterfeit software syndicate responsible for creating and distributing more than \$2 billion in high-quality fake Microsoft software. According to a press release from Microsoft, the sentences, which range from 1.5 to 6.5 years, mark the longest ever given in China for a software piracy-related crime. Among the software involved in the case were fake versions of 19 Microsoft releases discovered in at least 11 languages in 36 countries on five continents. Microsoft reportedly worked with the Chinese Public Security Bureau, FBI, and various customers and partners during the international investigation, which resulted in arrests in July 2007 following raids on the organization, which was reportedly based in the Chinese province of Guangdong. Fengming Liu, vice president of Microsoft's Greater China Region, applauded the effort of the Chinese government in a statement, saying, "Thanks to the actions of the Chinese government, we have seen a significant improvement in the environment for intellectual property rights in China."

Researchers Warn Of Major Internet Security Flaw

Security researchers recently demonstrated a flaw in MD5, a cryptographic technique used in security applications, including secure Web site certificates. Many Web browsers use CAs (certificate authorities) as third parties that guarantee that the certificate owner is a legitimate Web site, including numerous banking and retail sites. The flaw could enable hackers to hijack a legitimate site and then redirect requests to a forged site without the user knowing. Hackers would then have access to credit cards and other sensitive information because the SSL padlock symbol, which indicates that transactions are secure, would still be present on users' Web browsers. Microsoft, the Mozilla Foundation, and others have announced they are working with affected CAs to prevent these attacks from occurring.

■ AMD Layoffs Exceed Expectations

According to AMD's fourth-quarter results, which it recently submitted to the U.S. Securities and Exchange Commission, the chip manufacturer laid off about 600 employees—more than the 500 it expected—leading to a total of about \$34 million in severance payments. Of the \$34 million, the company will spend about \$6 million to close offices and other facilities, \$13 million on contract terminations, and \$17 million to write off asset values. In light of AMD's falling share price, the company plans to write off the goodwill value of its purchase of ATI; it also intends to write off its \$20 million investment in Spansion.



Enforcing Security Policies Beyond Office Walls

Controlling Risk Wherever Your Employees Are

by Carmi Levy

FAST-GROWING USE of mobile technology is forcing IT security experts to rethink how they keep equipment, employees, and data safe outside the office. Policies and tools that work within the corporate firewall or campus are often unable to keep laptop-toting employees from getting into trouble when they connect to uncontrolled networks at home or while traveling.

"If you're a road warrior, once you leave the four walls of your corporate office or don't otherwise have access to the virtual private network, you can go wherever you want and do pretty much anything," says Lawrence Orans, research director at Gartner. "This presents its own set of risks to the company."

Those Pesky Policy Knowledge Gaps

Those risks are unfortunately magnified by inadequate employee training. Jonathan Rutherford, head of corporate and public sector marketing for Vodafone UK (online.vodafone.co.uk), says the growing frequency of high-profile data loss underscores the issue's seriousness.

"We believe this is a significant and growing issue," he says. "Nearly a quarter of all businesses—23%—have experienced security issues because employees have used mobile devices or laptops outside of work in contravention of company IT policies."

Rutherford says that although most employees are not intentionally putting the enterprise at risk, the end result is the same. More than 88% of respondents to Vodafone's research said they had incomplete knowledge of IT policy. Rutherford says a lack of tools and systems to support organizational security policy is also a root cause.

Eric Maiwald, VP and research director for security and risk management strategies at Burton Group, says failure to heed these lessons can cost the organization on a number of levels. Leaks of identifiable personal information can result in regulatory breaches and fines, as well as damage to corporate reputation and brand. Loss of control over proprietary information, such as patent applications and blueprints, can severely compromise future competitiveness, even if an employee simply emailed the files home and worked on an unsecure peer-to-peer network.

No Single Solution

Gordon Rapkin, CEO of Protegrity (www .protegrity.com), says enterprises need to take the blinders off when it comes to securing assets on both sides of the firewall.

"A lot of companies are looking for the silver bullet, asking vendors to sell them technology that makes it all better," says Rapkin, whose company specializes in enterprise-wide data security management. "They forget that security is built on three major components—people, process, and technology—and they have to think about the problem in a holistic way."

Maiwald says a number of evolving technologies are making it easier to secure

sensitive data outside the firewall. "Terminal servers allow remote employees to work directly on their desktop without necessarily copying anything to their local machine," he says. "Enterprise data management technologies allow greater control over the data itself."

Policies also have a role, he adds.

"If an organization is willing to allow personal machines to be used, perhaps one of the requirements for accessing sensitive data is you put down a suite of control, including antivirus and DLP [data leak prevention], before you can gain access."

The future holds even more promise, says Maiwald. For example, a virtual machine delivered via VPN creates a secure sandbox that leaves no trace after the session is closed.

Gartner's Orans says organizations wrestling with remote or mobile employee security can choose between two highlevel infrastructure choices: cloud-based solutions or those leveraging DMZs (demilitarized zones). A growing number of vendors offer increasingly mature cloud-based services that extend beyond basic URL filtering to antimalware protection. DMZ-based solutions redirect remote traffic to a corporate demilitarized zone that allows consistent application of behavior-based policies no matter where the user is.

"The one drawback [with DMZ-based solutions] is there can be latency issues if you always have to go back to the DMZ," says Orans. "In the cloud, provided your cloud provider has a big enough global footprint, you can minimize latency issues."

Culture Is Key

Rapkin says enterprises in all sectors must invest in building a culture of security that helps employees understand the relative risks of specific behavior. He says between 70 and 80% of all security breaches are unintentional; if employees understand the risks, they'll adapt their behavior accordingly.

"Most employees are not trying to harm the company. They're trying to help. They're taking work home and doing it at night or over the weekend," he says. "They often don't realize when they're placing the company at risk.

"But companies aren't spending sufficiently on training them. They have big procedure manuals covered in dust sitting on a shelf, but they don't have a practical approach to employee education."

Computer Manufacturers Set Green Trends

With the ever-growing awareness of the environmental savings benefits, several computer manufacturers have announced their goals to not only become greener companies but to also help the rest of the world become more environmentally friendly.

News

Dell recently joined the quest for energy savings by announcing its new green packaging strategy. The project aims to do away with more than 20 million pounds of packaging material during the next four years and save about \$8 million in the process. The savings will come from a worldwide reduction of laptop and desktop packaging materials, and Dell is working to make at least 75% of the remaining materials curbside-recyclable by 2012.

Although Dell is also tackling other environmental issues, such as energy efficiency, and educating its customers about environmental savings, it is the first to implement a global packaging strategy. "We encourage every technology company to implement a global green packaging strategy. It's the right thing for our industry, our customers, and the Earth we all share," says Dell spokesman Sean Donahue.

Dell's new strategy not only benefits the environment but also plays a role within the small to medium-sized enterprise. "Smaller and greener packaging helps speed up deployment times while also enabling customers to dispose of any unwanted material in an environmentally responsible manner," Donahue says. In a nutshell, Dell is giving companies the resources needed to continue the green trend. "We're committed to helping small and medium-sized customers achieve their environmental goals," he notes.

Dell is not the only green-minded company working to make changes. It's been a year and a half since IBM announced its Project Big Green, which aims to help its clients assess and improve energy efficiency by updating data centers with virtualization and improved cooling solutions. IBM's initial goal was to achieve for its clients about 40% energy savings, \$1 million, and nearly 7,000 metric tons of carbon dioxide emissions.

HP is another computer manufacturer ready to make green changes. Perhaps most nota-ble of HP's goals is its recent partnership with Xtreme Energetics in creating a new solar energy system that will double the generation of electricity at half the cost of traditional solar panels. The new technology will be easier and less expensive to manufacture, possesses no environmental concerns, and can be aesthetically modeled to match existing materials.

by Kris Glaser

Many Solutions, One Strategy

Jonathan Rutherford, head of corporate and public sector marketing for Vodafone UK (online.vodafone.co.uk), recommends a multitiered approach to minimizing exposure when employees are off-campus:

Authenticate the end user. Use two-factor authentication to ensure users are who they say they are.

Secure the device. Use full disk encryption to keep data safe when laptops are lost or stolen. Secure the information. Use technologies such as DLP (data leak prevention) to prevent unau-

thorized downloading to USB drives, burning to CD, or printing.

Control application use. Allow users to download and use only approved apps. Monitor and maintain security applications. Keep firewall, antivirus, and antimalware software up-todate through regular signature and patch installations.

Secure the access network. Allow roaming employees to access corporate infrastructure only through trusted and approved access networks and technologies.

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plusID puts the convenience of biometric processing directly in the hands of its user, eliminating the organization's liability for maintaining and securing biometric databases.

Meeting Business Expectations

IT Departments Pushed To The Limit

by Robyn Weisman

EVEN THOUGH ADDITIONAL FINANCIAL and human resources are limited, IT departments are being asked to develop, implement, and maintain new business initiatives. This theme isn't a new one, says Gartner analyst Ken McGee, adding that the topic has become more pressing given the recession's effect on the economy.

"Being outstripped in their ability to meet demand is not new. What is new is that CIOs for the first time are openly saying it out loud and freely," McGee says.

Nevertheless, there is a big difference between talking about these issues and making changes so that your SME's management no longer assumes you can meet whatever expectations they throw at you.

Are You Kidding Me?

"Since the credit crisis, we continue to ask clients, 'How would you best describe the current level of activity among your developers? Are they not busy, busy, very busy?' The overwhelming majority indicates they are very busy. That constitutes one hell of a recession," says McGee.

The sheer volume of projects unfolding in the midst of a recession makes no sense whatsoever, McGee says. And much of that insanity lies at IT's feet because IT has failed to communicate to management what the limits are. Because management is not being given enough information to help them make good decisions, they haven't turned off the demand faucet, says McGee.

"The next time you swipe your credit card you do not first get, 'Hold on a second; do you realize you've already spent \$1,500 this month on your credit card?' You don't get that, and we don't do that with our management requestors of new applications," McGee says. "We are not being fair to managers because we are not saying to them what they are saying to their customers every day. 'Oh, you want to buy X? Here's how much it costs," McGee says.

Adds McGee: "You look at your kids after they find out that you're laid off. If they say, 'Can we still go to Disneyworld?' [you'll say,] 'Are you kidding me?' Yet that's exactly what's going on in business right now. 'OK, times are tough. Our revenues are down. Can I still have that ERP project?' Are you kidding me?"

Turn Off The Demand Faucet

Of course, determining which projects to keep and which to scrap isn't easy even for IT, and many of McGee's IT clients have said to him that they have saved as much money as they can find. But according to McGee, there is no way all the projects you have on the books constitute business imperatives. McGee recommends taking a zero-based budget approach to again justify all IT projects, a process he believes will reduce much of the demand in this economy.

"We do not depict the true genuine onetime costs or the recurring costs of an IT project before it's done. In fairness to management, were we able to do that consistently, people would suffer from sticker shock, and perhaps then projects that they deemed so important would not actually be blessed," McGee says.

Determine Which IT Projects Are Essential

Once you have determined how to stop the sheer volume of projects that are unfolding in the midst of a recession, as McGee has discussed, you then want to determine which of your remaining IT projects are essential to running your SME while the economy is in such a weak state.

For his part, CDW technologist Vic Berger recommends conducting a workflow prioritization plan. This is a process Berger believes all SMEs should do as part

Additional Hurdles To Clear

According to CDW technologist Vic Berger, today's economy necessitates that any IT spending proposal clears three hurdles beyond the traditional needs and benefits analysis:

- The investment purpose and objectives must always be well-defined.
- IT leadership must lay out risks and mitigate them in the funding proposal.
- The anticipated ROI (return on investment) must be above market returns and quickly achievable.

In addition, IT departments must demonstrate the ways in which any project affects:

- Operational efficiencies and productivity.
- Mission-critical capabilities.
- Cost offsets and cost savings.
- The bottom line.

of a healthy business continuity and disaster recovery plan; however, this process becomes essential during these economically trying times.

First off, Berger recommends SMEs should examine their IT processes by outlining them and prioritizing the processes accordingly. What processes are most critical for business operations? What IT operations will save your organization money? And which ones are just nice to have but aren't necessary?

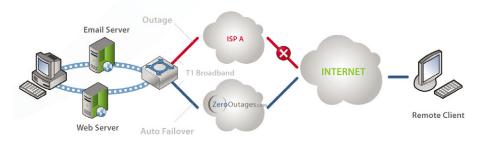
"Draw a line separating mission-critical needs and non-essential IT functions. This line will fluctuate depending on cash flow. Once the performance-critical applications are sorted, wait until the market changes to purchase anything off of that top-line list," Berger says. "Essentially, focus on the most basic business issues—most specifically, what IT applications do you truly need to run your business?"

Five Tips To Handling Business Expectations

Gartner analyst Ken McGee recommends that IT take the following steps when determining what IT and data center projects to support.

- Have a business owner or principal next to every project.
- Show to that owner the one-time, all-inclusive cost to implement and complete a project.
- Indicate the annual recurring costs once their project is in place and working.
- Any time a new project is blessed, simultaneously show the CFO the new aggregate total for IT spending by virtue of the project that was thus blessed.
- Have the business people demonstrate through a literal signature that, "Yes, I understand the one-time costs," "Yes, I understand the recurring costs," and "Yes, I bless this."

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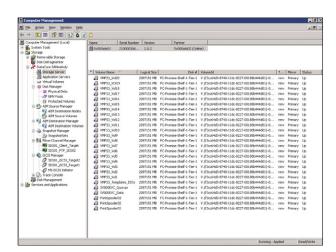
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How To

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Hire Data Center & IT Employees

Preparation Is Key To Landing Qualified Candidates

by Curt Harler

WHEN BUYING POWER SUPPLIES and blade servers, most IT managers are pretty comfortable with the process. But when it comes to investing in people—the real core of any data center-technology experts at some SMEs may find themselves on unfamiliar ground.

Hiring IT personnel is similar to fishing: The more lines you have out, the better your chances are of catching something. But you have to be fishing in the right places.

For instance, the classified ads are not the most ideal place to look for a technology specialist. Rather, you should point your search toward Web sites, blogs, and other Internetrelated venues tech-savvy people visit. Consider posting on corporate Web sites or IT industry-specified job boards.

"In the future, managers will need new and creative ways to attract people they like or can tap quickly when a job opens," says Larry Signorile, account manager for Johnson ReSource Group (www.johnsonre sources.com) "There are declining numbers of candidates available in the professional ranks-both the number of candidates looking for job[s] and the number of people getting out of universities."

Signorile says IT types often cluster on boards such as Monster (www.monster.com) and Dice (www.dice.com).

Start Looking

Good managers are constantly looking for IT or data center personnel, not knowing when they will need someone to complete

their team. "The expectation in a data center or call center is for very high turnover," says Debra Martin, director of talent management for Baylor Healthcare System in Dallas. She says the McDonald's model of always hiring large numbers of kitchen employees applies to data centers, as well.

"Forward-thinking companies are engaging candidates constantly," she says.

Signorile says, "More than ever, part of your success as a manager is to find good people when you need them." He recommends that managers develop a database and referral list that includes resources such as college job placement reps and co-op and internship programs. "Keep in touch with software or hardware people who are doing things that may be of value to your company."

Managers who fall behind on these tasks often turn to a recruiting firm such as Johnson ReSource Group. Others simply budget for help ahead of time.

Signorile emphasizes the need to stay ahead of demand. "Managers who are successful managing their department take time out regularly to develop staffing leads," he says. That way, when hiring time comes, the manager is ready.

"The first order of business is to understand what the job entails as well as the personal attributes of a successful worker," Martin says. This means writing a basic job description. Beyond that, she says the hirer has to understand the skills, knowledge, and experience required to do the job well.

"Personality is tricky and sometimes the most important aspect," Martin continues. Failed hires often result when the candidate doesn't fit the position. To avoid this pitfall, she recommends profiling high performers in a job class and understanding what a successful person brings to the position.

"The worst thing is for the senior vice president to have a different idea of the job than the department manager," says Signorile.

When looking for qualified applicants, some people view references differently. Martin likes a careful check of references. "Referrals from trusted and respected colleagues take precedence," she says. However, she also recommends consulting a firm that conducts background checks to verify an applicant's previous employment and education.

Signorile is wary of background checks. "Reference checks have to be done very carefully," he cautions. "When you pick up something negative, like bad attendance or bad attitude, you have to ask if there is a bias. The information might be dated or slanted."

Martin adds that it is also wise to protect yourself with inexpensive assessment tools. "They are available everywhere and are pretty accurate," she says. These tools let managers evaluate a host of characteristics from integrity to one's tendency to job-hop.

Cost Of New Hires

It will cost an SME an estimated \$50,000 to \$60,000 to replace a network administrator, Signorile figures. And it will cost between three and six months' time to hire a senior network administrator. The \$60,000 includes the cost of management time, advertising, an employment agency fee of 25% to 30% of first year's salary, and relocation.

Don't forget to look in your own backyard. Both Signorile and Martin say that posting a job internally is a good place to start—that is, if there is no need for keeping the job opening a secret. "If your workers are happy with their job[s], they should be comfortable recommending friends," Signorile says.

"It is exponentially more expensive to hire new workers than it is to hire internally," Martin adds. "That is even more true the higher the level of the worker."

Costs can snowball, as well. For an entrylevel data center person, there likely are no search fees. The job is simpler, and there is less ramp-up time and cost. The overall cost of the job vacancy is less. Just the opposite is true for upper-level positions where loss of a key manager can upset the entire process.

Hiring is expensive in terms of time, too. Even for lower-level IT jobs, you want to allow six to 12 weeks for preliminary screening, interviews, connecting a candidate with the right internal people, and so forth. Even then, there is no guarantee your star candidate will accept the offer.

And when talking salary, it is marketdriven. Benchmark to see what the local

Key Points

- · Hiring IT/data center personnel is important, so prepare yourself for the process ahead of time. Chances are you will be hiring sometime throughout the year.
- When preparing to fill a position, be sure to budget \$50,000 to \$60,000 for recruiting alone.
- You can improve your chances of finding candidates to fill a position if you look to Web sites, blogs, and other Internet-related venues, such as industry-related job boards or corporate Web sites, where tech-savvy people are apt to visit.

market pays for the required skill set. Martin recommends a screening mechanism to sort out the high volume of applicants that typically apply for every job posted. "Do this online," she advises. "Have a few 'knock-out' questions that show which candidates do not meet your requirements."

Also, look ahead when hiring. "Technology is a fluid thing," says Martin. "You are buying the employee's current skill set." And this can present a dilemma in some situations as an SME may have to invest in training or hiring to replace IT personnel.

Interviews

Martin likes the behavioral interview, which consists of asking a candidate how he used his job skills or solved specific problems. "Be specific that you want to know what they actually have done not blue sky on what they would do," she says.

Recruiters like Signorile can cut a lot of time out of the interview process: They coach management on writing a job description, they maintain files of job hunters, and they have an extensive network of other recruiting firms to draw upon for names. "Agencies can make it happen in six weeks. We know the questions to ask on the first day of the search and can whittle our list to two or three good candidates and have them in your office within a week."

In short, employment agencies do the things that Martin and Signorile agree all good managers do on their own. In addition, recruiters often save an SME from making procedural errors.

"When you do your departmental budgeting, look at turnover," Signorile says. A department with five IT workers that loses one employee every two years should budget each year to replace one person. By staying in touch with likely candidates and having the revenues in the budget, an SME will be ahead of the hiring game. \square

TOP TIPS

- When hiring IT/data center staff, you should set aside a budget and time to look for qualified candidates. If this isn't possible, consult a recruiter to help with your search.
- · Before posting a job description, know the attributes of

other people in your firm who succeed in similar jobs. Sometimes personal attributes (patience and willingness to work, for instance) count as much as technical expertise.

Continue looking for potential candidates even if you

don't need to currently fill a position. Turnover in a data center can be high, so always keep your search open. This includes talking to others in the field, visiting college job fairs, and talking to current employees and enabling their aspirations for growth.

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SIX QUICK TIPS

Choose The Best Rack/Equipment Setup

Tips For Arranging The Data Center Equipment In Your Small To Midsized Enterprise

by Sixto Ortiz Jr.

SETTING UP RACKS and equipment within a data center may seem like a rather humdrum task for administrators facing many other challenges, such as provisioning, asset management, and security. But savvy administrators know that properly setting up racks and equipment is an important facet of a well-run data center.

From optimal cooling to proper rack loading, choosing the best rack and equipment setup influences a number of important data center environmental variables. Administrators looking to save time and money in these challenging economic times must pay close attention to this important aspect of data center operations.

Work Toward Efficiency & Energy Savings

Equipment in the data center runs on electricity—and plenty of it—so power considerations are paramount, especially with companies striving to demonstrate a "green" consciousness by implementing and showcasing enhanced energy efficiency in operations.

Ed Sladek, senior manager at Dell's GICS Data Center Practice, says administrators should implement power metering, which can be used to demonstrate energy savings and thus help in the approval of future data center infrastructure projects.

Old data centers, he points out, utilized approximately three times the power used by

the IT equipment for a PUE (Power Usage Effectiveness) of 3. New data centers, he adds, can be designed to be 30 to 50% more efficient; in fact, decision makers should insist that architecture and engineering firms propose designs with a PUE as low as 1.5.

The amount of power required to run data center equipment obviously increases along with rising rack and server densities. Implementing three-phase power, says Ben Grimes, CTO at Avocent (www.avocent .com), "provides a long-term solution for this problem because it can support growing power requirements as data centers become more densely populated."

Three-phase power distribution devices, adds Grimes, can accept a single three-phase input voltage and then convert it into three single split-phase power circuits. This, he says, is more cost-effective than running numerous single-phase circuits because an entire data center rack can be powered with a single circuit (or two circuits for redundancy).

Optimize Air Movement & Cooling

It goes without saying that air movement and equipment cooling are absolutely critical for optimal data center operation. Data center administrators who neglect this do so at their peril and risk, at best, inconsistent equipment operation and, at worst, equipment failures.

Deborah Petty, senior account manager at Rackmount Solutions (972/272-6631; www .rackmountsolutions.net), says administrators

should ensure a rack will meet their cooling needs, especially those that will house equipment that heats up substantially internally. Petty recommends racks equipped with fans on the doors, perforated doors, or some other type of AC cooling solution.

Dell's Sladek recommends that administrators avoid the mixing of hot and cold air via the use of cold/hot aisle containment, blanking panels, perforated tiles placement, etc. Also, adds Sladek, administrators should consider sectioning the data center by power and cooling intensity; this can be done by creating zones at different power densities and designing the cooling and airflow

Krista Satterthwaite, manager for HP's ProLiant marketing, says data centers should be designed using a hot aisle/cold aisle rack orientation for optimal cooling. With this configuration, she adds, equipment fronts face the cold aisle, while equipment rears face the hot aisle.

Albert Ramos, facility engineer at Terremark Worldwide (www.terremark .com), says curved perforated doors at the front and rear of an enclosure allow for more air ventilation and exhaust out of the rear of the cabinet. And, he adds, brush guard-style side panels in between cabinets and solid side panels at the ends of aisles allow cabinet-to-cabinet connectivity while maintaining hot and cold air separation.

Migration As Housecleaning Opportunity

Dell's Sladek says that even without an intensive virtualization or consolidation project as preparations are made to move equipment to a new facility, this is still a great opportunity to identify servers that are no longer performing useful work. For example, he notes, if no application owners can be identified for certain servers, those become great candidates for decommissioning.

"Dell has found," says Sladek, "that as many as 10 to 20% of servers are no longer performing useful work." Data center moves are certainly a good opportunity to clean house, remove outdated or underused equipment, and streamline operations.

And speaking of housecleaning: The setup of new racks and equipment is also an opportunity to tidy up existing cabling runs or develop a sensible strategy for cabling management. Rackmount Solutions' Petty says

Easiest To Implement:

Raise Your Equipment Temperature

For those administrators looking for easy ways to capture low-hanging fruit, here is a tip to implement: According to Ed Sladek, senior manager at Dell's GICS Data Center Practice, administrators should check with the manufacturers' suggested operating temperature ranges for their equipment. Newer equipment, he notes, is designed to run at higher temperatures, so taking this simple step can help administrators reduce the energy consumed by a data center for cooling purposes.

Best Tip:

Utilize Energy Measurement Tools

"Whether cutting costs or going green," says Ben Grimes, CTO at Avocent (www.avocent .com), "companies need the ability to monitor and measure IT energy consumption, costs, and trends across all levels of data centers and remote locations: at the device level, the rack level, within a row of racks, or the entire room."

Using energy measurement tools can provide administrators with improved understanding of capacity, consumption, and costs, says Grimes. Access to this information, he emphasizes, gives IT administrators, facilities departments, and the company the right data to analyze costs and develop a cost-reduction

whenever cabling is a big part of a rack installation, administrators should verify whether or not a rack will accommodate a significant amount of cable drops. Terremark Worldwide's Ramos says integrated sidemounted vertical cable managers keep network cables neatly tucked into a cabinet without taking up additional space.

Power Distribution Units Offer Flexibility

Servers don't fail according to a convenient schedule. So, having the capability to remotely turn equipment on and off is absolutely essential for those administrators who don't want the hassle of traveling to the office at 3 a.m. to restart a sick server.

According to Avocent's Grimes, access to secure remote power on/off is necessary for improved control of servers and network gear and quick recovery of equipment. Also, he adds, intelligent PDUs can provide integrated console and power management and independent control of each power port vs. powering off an entire power strip.

BONUS TIPS

■ (Don't) feel the noise.

According to Deborah Petty, senior account manager at Rackmount Solutions (972/ 272-6631; www.rackmount

solutions.net), if a rack is going to be placed in an area where noise from equipment or fans is going to drive everyone crazy, administrators should either reconsider the placement of the rack before purchasing or

invest in a sound-dampening cabinet or quiet fan solution.

■ Use common sense. Albert Ramos, facility engineer at Terremark Worldwide (www .terremark.com), says reversible doors allow personnel to access equipment from the right or left and perform quick removals during installations

Also, he adds, installing filler or blanking panels in empty rackmount unit spaces prevents the mixing of hot and cold air within a cabinet.

Finally, says Ramos, rackmount unit labeling on cabinet mounting rails allows for quicker installs and easy identification of servers at different levels of the rack.





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WHAT'S HAPPENING

Meeting Changing Needs

Emerson Adapts To Fit IT Needs As Managers Consolidate & Embrace New Technologies

by John Brandon

KEEPING THE BUSINESS running is the main goal of a data center manager. With growing complexity in IT, new advancements such as virtualization, and a smaller staff of technical employees, the challenge often seems insurmountable.

Emerson Network Power (www.emerson .com) positions itself as an ally to small to midsized enterprises that understands that the IT infrastructure is always changing. The company's products are aimed at addressing an SME's infrastructure needs and meeting the power and cooling demands within the data center.

Covering Several Bases

Emerson Network Power is one of several companies under the Emerson brand, which got its start as the Emerson Electric Manufacturing Company in 1890.

"Beginning in 1985 with the acquisition of ASCO Power Technologies, Emerson started to put together what would become the Emerson Network Power platform," says Matt Kightlinger, director of solutions marketing for Liebert Products, a division of Emerson Network Power. "The next major addition to the platform occurred with the acquisition of Liebert Corporation in 1987. Founder Ralph Liebert built the first precision air conditioner prototype for IBM in 1964 and later added a power protection division."

In 2000, Emerson Network Power found its product focus with IT network protection, telecommunications, and infrastruc-

ture. Liebert, Emerson's power division, makes devices for AC power, cooling, racks, cabinets, and monitoring.

Recent products include the Liebert NX UPS with Softscale technology, with modules that support standard rack sizes, have a 97% efficiency rating, and can switch from 40kVA to 60kVA to 80kVA or from 80kVA to 100kVA to 120kVA with software. The Liebert Challenger ITR is a cooling unit that can be installed in rows of racks; uses a horizontal airflow pattern; and, at 91 inches high and 43 inches deep, is ideal for SME data centers where the ceiling is low or there is cabling in the way.

"Knurr racks and enclosures have a full rear door, a 19-inch Electronic Industries Alliance rail to enable mounting of tool-less cable management equipment, and conventional power strips, low-profile casters, and vertical blanking panels," says Kightlinger. "The Liebert NXL family of UPS systems is designed for medium[-sized] and large data centers and can handle virtually any input condition while still supporting present and future computer loads. First models of this online double conversion UPS are available in 250kVA, 300kVA, and 400kVA ratings."

Advantages For The SME

With so many options for power in the marketplace today, Emerson Network Power stands out by making sure its products are closely aligned with new IT trends, focusing on helping an SME consolidate, and ensuring flexibility in how the products are deployed and when.

One example is that the Knurr racks the company offers are available in more sizes than those of competitors, which helps an SME of any size to install racks according to the available airflow and space allocations. The Softscale technology scales power to the needs of the organization. Cooling systems can be used in network closets, larger data centers, or even in a small office run at a home where most employees work remotely.

"SME IT managers usually have to handle everything related to their companies' IT systems, but they aren't always IT infrastructure experts," says Kightlinger. "They need simple solutions they can understand and operate, [offerings] that are flexible enough to handle a growing business, and qualified expert support when they have a question or concern."



One challenge that Kightlinger sees plaguing small to medium-sized enterprises is that they are often shoehorned into available space: Many smaller companies have to operate under the conditions the company provides, as opposed to designing the data center space for optimal IT needs. In an age of consolidation and virtualization, these less-than-ideal conditions cause an even greater burden as managers are told to use the space they have to an even more efficient degree. It's a challenge of high efficiency, great complexity, and even customizability that Kightlinger says Emerson understands.

Future Advances

Consolidation also implies adaptability to trends: As they consolidate equipment, managers need to be aware of how the technology is changing. Kightlinger says Emerson is planning several key advancements to help SME data center managers.

One is in integrated enclosures, also called a data center-in-a-box or a mini computer room, which put all the power and cooling elements into an all-in-one product. This kind of spot cooling allows managers to focus on the rack itself, not on the room as a whole.

"Monitoring what's going on inside IT spaces is becoming more and more important because IT systems are becoming more complex, especially for SMEs," says Kightlinger. "Keeping an eye on performance will help businesses steer clear of unnecessary maintenance and repair costs. Energy efficiency is going to become more of an issue, as well. Efficiency already is a focus for larger enterprises, and now SMEs are paying attention. Opportunities exist to improve energy use throughout IT spaces of all sizes."

Kightlinger continues, "UPS scalability is emerging as a popular solution to reducing the risk associated with miscalculating future capacities. Statistical analysis of UPS system configurations in light of failure rates shows that system reliability begins to decrease sharply when more than four UPS modules are used in a single system."

IT will continue to consolidate, become more dependent on emerging technologies, and become an even more critical part of long-term strategy. The heart of a company—the data center—is becoming more integral to how a company performs and often is the make-or-break equation in how a company meets customer needs, tracks orders, or pushes into new markets. Kightlinger says Emerson Network Power is ready for this challenge of scaling, growing, consolidating, and embracing new technology.

THREE QUESTIONS

Affordable & Reliable Networking

Transition Networks' Fiber Optic Networking Solutions Extend Functionality

by Julie Sartain

TRANSITION NETWORKS, KNOWN AS TRANSITION ENGINEERING until its name change in 1995, was founded in 1987. Since its inception, Transition Networks (www.transition.com) has experienced continued rapid growth as its products have evolved from general Ethernet networking equipment to a complete line of conversion technology solutions. The company was also the first to develop a Gigabit PoE media converter.

Marketing Manager Jacob Pomplun has been with Transition Networks for a year; previously, he spent two years at TestQuest and six years with Goodrich's Aerospace division. Zach Sherman, field application engineer, has been with Transition for more than two years and has a background in electrical engineering.

■ What are the biggest IT-related issues facing today's small to midsized enterprise?

Budget constraints and the ever-increasing demand for more bandwidth are the two greatest IT issues, note Pomplun and Sherman. In order to alleviate these restraints, Transition Networks manufactures low-cost, highly reliable networking hardware that lets organizations grow in capability without replacing existing equipment that still works but is becoming overwhelmed.

Other concerns are the issues regarding remote office employees. "At what time in an organization's development is it worth it to the company to make the financial commitment to set up remote offices?" says Pomplun. With Transition's equipment, an organization can privatize the network they're deploying and eliminate the huge expense of leasing a circuit from the service provider.

"A leased dark fiber line is much more affordable than a completed circuit. Our equipment allows communications to reach up to 160km (more than 90 miles) without need of additional 'hops' in the middle," adds Sherman.

■ What should *Processor* readers know about your company's products?

Some users have doubts whether media converters are an older technology with unintelligent blind spots on their networks. This statement is no longer true, notes Sherman. Transition Networks manufactures a line of converters that can be 802.3ah-managed, IP-managed, or control-managed via a local unit and proprietary technology. These features include Simple Network Management Protocol functions, bandwidth allocation, virtual local-area networks, and Web-based management freeware.

With Transition's media converters, organizations can build another layer of redundancy into the network and increase speeds on their fiber from current Fast Ethernet networks up to Gigabit networks without having to replace their current working switches.

"We manufacture the highest-quality equipment and back all of our products with a lifetime warranty, including the weakest link in any electronics: the power supplies," Pomplun explains. "Our products offer customers the ability to add reliability, flexibility, and future-proofing of fiber optics to their networks without drastically increasing capital or operational expenditures."

What makes your company unique?

"Our commitment to quality and finding the best solution for our customers," answers Pomplun. "We are constantly committing additional research into designing and developing new products to fit the next generation of communication gaps that will undoubtedly occur."

"And because so many of our engineers are based at our headquarters, we can offer quick answers to questions regarding design or even possible redesigns to fit a customer's particular needs," says Sherman. "We can make modifications, remove or add features on the fly, and do the work that larger companies don't have the time or will to do. Our design engineers are focused on building and maintaining customer relationships throughout the life cycle of our products, not just on selling the 'next big thing' in the market."

Transition Networks started as a manufacturer of transceiver modules and evolved into an organization prepared to offer a full range of networking solutions based around the benefits of fiber optics. "And because of our affiliations with so many approval boards, Transition Networks was in a position to release some of the earliest Metro Ethernet Forum-certified network interface devices," concludes Pomplun.





Over the past 20 years Pegasus Computer Marketing has evolved from a marketing company for mainframe terminals to providing both sales, maintenance, and flat rate repair for POS, barcode hardware of all makes and models, wireless and networking peripherals, laser printers, and flat panels just to name a few. PCM currently carries several large contracts with major retailers from POS units to handheld scanners, vehicle computers to access points and related peripherals. PCM can tailor flexible contracts to cover any client requirements. To ensure the quality of our products and services we offer only depot maintenance.

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